

**A STUDY TO ASSESS THE EFFECTIVENESS OF
VIDEO ASSISTED PREOPERATIVE TEACHING Vs
PREOPERATIVE SELF INSTRUCTIONAL BOOKLET ON
POSTOPERATIVE ANXIETY, DEPRESSION AND
PHYSIOLOGICAL PARAMETERS AMONG
PATIENTS SUBJECTED TO CABG,
AT KMCH, COIMBATORE.**

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**A DISSERTATION SUBMITTED TO THE TAMILNADU
Dr.M.G.R.MEDICAL UNIVERSITY, CHENNAI, IN PARTIAL
FULFILMENT OF REQUIREMENT FOR THE DEGREE OF
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CERTIFICATE

This is to certify that the dissertation entitled **A STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED PREOPERATIVE TEACHING Vs PREOPERATIVE SELF INSTRUCTIONAL BOOKLET ON POSTOPERATIVE ANXIETY, DEPRESSION AND PHYSIOLOGICAL PARAMETERS AMONG PATIENTS SUBJECTED TO CABG, AT KMCH, COIMBATORE**, is submitted to the faculty of Nursing, **The Tamilnadu Dr.M.G.R. Medical University**, and Chennai by **Ms. JINCY GEORGE** in partial fulfilment of requirement for the degree of Master of Science in Nursing. It is the Bonafide work done by her and the conclusions are her Own. It is further certified that this project or any part thereof has not formed the basis for award of any degree, diploma or similar titles.

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*I will proclaim your greatness,
My god and king;
I will thank you forever and ever.
Every day I will thank you;
I will praise you forever and ever.*

(Psalms 145:1-2)

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CHAPTER-I

INTRODUCTION

“All the knowledge I possess everyone else can acquire, but my heart is all my own.”

Johann Wolfgang von Goethe

Coronary Artery Bypass Graft (CABG) is an acceptable procedure for revascularize the heart. Heart surgery is creating certain emotional and physiological responses in patient especially anxiety and depression for the patient who had surgery for the first time. According to Edelman (1995) it is quite unpleasant for anyone undergoing surgery because medical procedure may provoke anxiety for many reasons.

Patients will react differently to illness and it depends on the attitude of patients towards it. Coronary artery bypass graft surgery is a major surgery which will create anxiety and depression in patients

According to Spielberger (1972) “Anxiety is an unpleasant emotional state or condition which is characterised by subjective feelings of tension, apprehension and worry and by activation or arousal of the autonomic nervous system”. Whenever the body has to face the threat or whenever the person become anxious, the pituitary gland will secrete a number of hormones that will act on adrenal glands and it will secrete Adrenaline. This hormone then goes on to make our hearts pump faster, our lungs breathe faster, our muscles to become tense, our bodies sweat and our minds to narrow their focus. This is a very fast reaction and takes place within a second. We need this response so that we can prepare to take action like run away or fight. Whether we fight or fly our bodies need our hearts to pump more blood to the muscle and our lungs to breathe faster to supply more oxygen to our blood and our minds to narrow their focus in order to think fast. In addition to it inhibition of immunity and digestive system also takes place. Externally anxiety shows symptoms such as yellow skin, trembling, sweating and pupillary dilatation. Our physiology responds very

quickly to threats when the anxiety response is triggered. Totally the cardiac workload is increasing and in other side these actions cause negative effect on health.

The other emotional threat which is experienced by the patient is depression. It results from the long term dependency on drugs, strict life style changes etc. According to American Psychological Association (APA) **depression** is more than just sadness. People with depression may experience a lack of interest and pleasure in daily activities, significant weight loss or gain, insomnia or excessive sleeping, lack of energy, inability to concentrate, feelings of worthlessness or excessive guilt and recurrent thoughts of death or suicide. In 2003 Mathew stated that depression is present in patients undergoing CABG postoperatively than preoperatively and also if depression is present preoperatively, it is likely to be seen during the postoperative period. And if depression remains in postoperative period it affects the quality of life of patient.

Philip(2011) summarising that depression and cardiac diseases are the top ten causes of an estimated 56 million deaths in the world. The anxiety and depression closely associated with the cardiac surgery outcomes. Depression is prevalent in between 15-20% of the CABG patients.13% of the patient reports depression after the surgery and it results from the stressors of surgery that can produce a reactive type of depression. This study suggest that depression is associated with gender, living alone, lower school education, dyspnoea at rest, previous MI .It showed the symptoms like lack of concentration, loss of appetite, insomnia, fatigue etc.

In 2010 Pozuelo reported that depression have been shown to have increased platelet reactivity and decreased heart variability and increased pro inflammatory markers such as C-reactive protein which are all risk factors for cardiovascular disease and also depression can increase the risk of adverse cardiac event such as heart attacks, blood clots and also increases the risk of development of coronary artery disease. Postoperative depression in Cardiac surgery patients will intensify the pain, fatigue or cause a person to withdraw into social isolation. Patients who have had CABG and have untreated depression after surgery also have increased morbidity and mortality.

From the emotional disturbances like anxiety and depression will cause changes in the physiological parameters like increased heart rate, respiration, blood pressure because of the hormonal changes. In 1997 Watkins stated that when the stress response decreased there is a change in the heart rate, respiration and blood pressure. Wong and associates (2001) reported that when there is a reduction in the anxiety a significant reduction in heart rate, respiration and blood pressure can be observed.

In 2000 Salmon reported that anxiety is pervasive in healthcare and illness. Anxiety is classified into two i.e. outcome anxiety and procedural anxiety. Initially the patient was worried about the results of illness and treatment and later it will relates to the medical procedures. Among these two types of anxiety, procedural anxiety should be taken as an evidence of failure of health care team results from the lack of provision of proper information because it is the fear about the consequences or what is going to happen. In 1980 Gotze and Dahme stated that the anxiety scores are high in patients undergoing surgery with an uncertain outcome.

Joanna (2003) investigated and reported in their study that heart surgery is a factor triggering off specific emotional and physiological responses of a patient. In spite of positive somatic effects of surgery, depression and anxiety can persist or appear for the first time after the operation

In 1997 Duit and associates analysed the quality of life after coronary artery bypass surgery .The study explains that patient got high preoperative anxiety and depression scores were reported in predicting high levels of anxiety and depression after the surgery And it affects the recovery after the coronary artery bypass graft

According to Chunta (2009) recovery after open heart surgery was complicated by preoperative and postoperative anxiety and depression. High levels of anxiety were present before and immediately after the surgery and also after the surgery 60% of the patient experienced depression. Depression has been linked to higher mortality, readmission rates, wound infections and postoperative cardiac events. Depressive symptoms are highest immediately after the surgery and can

continue for weeks to months after discharge. And also he supports to have the interventions to assist the patients to prevent all these negative emotions in his study

According to Andrea and colleagues, (2007) the recovery from the surgery is not entirely determined by physical attributes and medical treatment. But social and psychological factors may also influence the process of postoperative and long term recovery. Several studies have shown the importance of psychosocial factors in development of CHD and or worsening of symptoms and survival in the presence of these factors. These factors particularly anxiety, depression and self related health seem to influence the postoperative recovery after the bypass surgery

Douki.,et al. (2011) explaining that anxiety is considered to be a risk factor for surgical outcome, development for the cardiac diseases. The patient who is more anxious is having more postoperative pain and it also influences the quality of life of patient.

Rosenfeldt and associates (2011) done a study on physical conditioning and mental stress reduction-A randomised control trial in patients undergoing cardiac surgery. The study pointing us to the fact that anxiety is a predictor of poor recovery from the cardiac surgery. Depression is more common after the surgery and the anxiety, depression and stress are associated with greater morbidity after the cardiac surgery. Long waiting period for the surgery also will exacerbate anxiety and stress and it affects the physical and social functioning. And also the preoperative anxiety and postoperative depression increases the postoperative readmissions to the hospital. Therefore the preoperative waiting period should include education, encouragement to achieve behavioural changes, regular exercise and relaxation training.

According to Dunkley and colleagues (2008) the anxiety, depression, optimism and determination rehabilitation, social support are having a complex relationship and it affects the recovery. By providing information, support, and reassurance especially for the patient who is having anxiety or depression facilitates good recovery from the surgery.

In 2009 Akbarzadeh., et al. found out that the patients who are subjected to CABG is more anxious means, it may increase the mortality and morbidity. The preoperative teaching or reassurance helps to decrease the anxiety

Legaard & Fagermon (2005) have examined the men's and women's experience after CABG. The study reported that women are more vulnerable to losing their previous life style and experiencing a reduced ability to perform housework during the first 2 weeks after discharge. The study suggesting to have interventions for the good recovery and also to prevent anxiety, depression.

Towell & Nel,(2010) investigated about preoperative education programme for patients undergoing coronary artery bypass surgery. In this study the preoperative education have been shown to relieve the anxiety and produce better outcome after the surgery.

According to Zhang, et al (2012) the nurse initiated preoperative education on post operative anxiety symptoms and complications after CABG are helpful to improve the clinical outcomes followed by CABG by preventing the significant perioperative complications and postoperative anxiety.

Yi Li Ko and Pi Chu Lin (2011) reported that surgery is a stressful event and patient often experience heightened anxiety and fear. With the intervention there is a significant reduction in anxiety and also this cause reduction in the heart rate and respiratory rate and blood pressure.

Vast literature shown that anxiety and depression have direct negative effect on coronary pathology. Anxiety is a predictor of poor recovery from cardiac surgery. Depression is a common problem after cardiac surgery. Nurses must help patients manage anxiety throughout the CABG because anxiety and depression is distressing for patient and higher levels of anxiety are predictive of poor outcomes. Patient who are more anxious before CABG have more postoperative pain, less long term relief of cardiac signs and symptoms, more readmissions and poor quality of life.

For a good outcome of surgery physical and psychological wellbeing is needed for the patient. Physical well being can be achieved through medical and

surgical interventions, the psychological wellbeing can be achieved through by many interventions include provision of information, support and stress management or other relaxation techniques. So to achieve comprehensive health preoperative education is essential and it should be given before one or two days before surgery.

NEED FOR THE STUDY

Cardiovascular disease and stroke are the world leading killer disease. Coronary artery disease (CAD) is the common type of cardiovascular disease and accounts for majority of the deaths.

According to WHO heart disease and stroke kills some 17 million people a year, which is almost one third of all deaths globally. CAD kills more than 7.3 million people each year. Most of these deaths are in developing countries. Highest number of deaths from CAD reported in 2002 ie 2,265,824. By 2020, heart disease will become the leading cause of death and disability worldwide, which is the number of fatalities projected to increase over 20 million a year and by 2030 to over 24 million a year. (Atlas of the heart disease and stroke 2004).

Zipes, et al. (2005) reported an estimate of 13,200,000 Americans have coronary artery disease. It accounts for 54% of all deaths in American men and women resulting in more than one in five deaths in US. In 1999 Mathey stated in his study that coronary artery disease is becoming major global health burden. The CAD accounts for nearly half of the total annual deaths, almost 25 million in the world. Every year CAD are responsible for 14 million deaths in the world.

The global burden of diseases study reported that the estimated mortality from CAD in India at 1.6 million in the year 2000. Extrapolation of this estimate shows the current burden of CAD in India to be more than 32 million patients. A conservative estimate indicates that there could be 30 million CAD patients in India of which 14 million are in urban and 16 million are in rural areas. If current trend continues by the year 2020, the burden from CVD in India will surpass other regions of the world.

To manage this dreadful disease many newer diagnostic and treatment modalities are there like coronary interventions and cardiac surgery. The bypass

surgery was first performed in India in 1975. In the mid 1990 some 10,000 bypass surgeries were being performed annually in India. Presently the annual number is about 60,000 according to the industry sources. It is commonly performed procedure worldwide. In bypass surgery the newer technique is doing surgery on beating heart. It makes the surgery less invasive and alleviating the postoperative complications.

Since CABG is a major surgery, anxiety factor always remains one of the major concerns over a period of time. Patient may also experience a drug induced depression due to long term dependency on drugs. Patient feels more tensed and he has lots to ask to the medical team regarding his surgery. A tensed state may lead him to long term sleep deprivation, rather mesmerized. Studies proved that patient is quite interested in various counselling and would also be interested in having good knowledge on post operative treatment regimen and life style modification.

Murphy (2008) stated in 'European journal of cardiovascular prevention' that most patients will develop anxiety and depression after the CABG surgery. Black and Jacobs (1997) also added that patient express this by asking questions about surgery. Heart surgery is a factor triggering off specific emotional and physiological responses of a patient. Rymaszewska, J., in 2003 reported that, in spite of positive somatic effects of surgery, depression and anxiety can persist or appear for the first time after the operation worsening the patient's psychosocial functioning and quality of life.

Boore (1978) was still more expressive and concluded that the anxiety caused by the illness, hospital admission, surgery will create an impact on homeostasis, which will leads to psychological and physiological distress and this will impede the recovery. She also gave light to the study by telling that providing information preoperatively can improve the postoperative recovery.

Depression is highly prevalent in patients with coronary heart disease. It has been found more in postoperatively than preoperatively in CABG patients. Philip (2011) evidenced that the depression, anxiety and general distress exhibit discrete associations with cardiac surgery outcomes. Lynn (2005) explained that patients with higher depressive symptom scores at the time of hospital discharge had more wound infections and wound healing problems. Michales (2002) proved that patients who is

having depression after the CABG surgery is at increased risk for getting more heart problems.

Vivian (1998) learnt that patients who underwent bypass surgery expressed their anxiety regarding the cardiopulmonary symptoms in the form of like chest pain, arrhythmias, palpitation and use of medication .In this situation if we are giving prior education it facilitate to decrease the anxiety or absence of anxiety.

Shuldham(2002) reported that patient education is an important element of care for people having a range of investigations and treatments and this education is having a potentially beneficial effect on outcomes. In particular research, and meta-analyses of the studies, has demonstrated the positive effect of pre-operative education on post-operative outcomes in patients having a variety of surgical procedures. Towell, A (2010) states that preoperative educational programmes have been shown to relieve anxiety and produce a better outcome after surgery.

“Patient education is an important independent nursing function” (Kozier.et.al 1991). Teasley (1992) states that the nurse needs to encourage is compliance by carefully explaining what he will experience before, during and after the procedures and this information will reduce the patient’s anxiety.

As the technology advances many methods are there for the effective teaching and learning. Among that many ways the most effective one is Video assisted Teaching, this will provide clear cut idea about the topic. The multisensory approach of this learning technique will help the patient to remember and learn more and more rapidly.

Instructional booklet teaching is a type of direct teaching. It is a flexible method and facilitates more understanding to the patient and they can do the review whenever they want. Booklet and the pictures in the booklet will create an interest and clear understanding. It is one of the most successful methods of teaching. It is the most commonly used method of teaching in patient education.

Providing patient education and information is an integral part of the modern health care. Here the nurses are having greater responsibility to give to education to the patient in most effective way. This education will help the patient to cooperate with the health care personnel and also help them to make good choices about their care and treatments.

As the technology advances nurses are giving more importance to patient's physical symptoms than the psychological problems. But the nurses are responsible for both the physiological and psychological health of the patient. Many studies are showing that the psychological issues are having negative effect on the physical health especially for the cardiac patients. So the investigator desired to enlighten the importance of psychological support by nurses in reducing postoperative anxiety and depression in most effective way. This realization motivated the investigator to determine the effectiveness of Video Assisted Teaching Vs Instructional Booklet Teaching on Postoperative Anxiety, Depression and Physiological parameters among patient subjected to CABG.

In the light of the available evidence which suggests that nurses are not 'good patient teachers' the study is made to support the suggestion that patient education should become the responsibility of specialist nurses. In addition, Video Assisted learning (VAL) is proffered as the solution to a number of the problems facing patient educators. VAL is seen as a means of empowering the patient, rather than the nurse to take control, and this is viewed as a positive move in the direction of self-care. The paper concludes by suggesting that VAL might be used with good effect by patients with particular learning difficulties; for example the blind or partially sighted, and people who are illiterate or have a low reading ability.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of Video Assisted Preoperative Teaching Vs Preoperative Self Instructional Booklet on Post Operative Anxiety, Depression and Physiological parameters among patients subjected to CABG at KMCH Coimbatore.

OBJECTIVES

Objectives of the study were to

1. compare the effectiveness of Video assisted Teaching and Instructional Booklet on Post operative Anxiety, Depression and Physiological parameters among patients subjected to CABG.
2. correlate the Postoperative Anxiety and Depression among patients subjected to CABG.
3. associate Postoperative Anxiety, Depression and Physiological parameters with selected Demographic variables.

OPERATIONAL DEFINITION

1. **Preoperative Education:** It is the information regarding CTU environment, doctors, surgery, postoperative care, ventilators, tubings and others by using computer and instructional booklet.
2. **Anxiety:** It is an emotional feeling of fear, worry, uneasiness, dejection during the days followed by surgery and which is measured by Hospital Anxiety Depression Scale and State Trait Anxiety Inventory.
3. **Depression:** It is more than just sadness. People with depression may experience a lack of interest and pleasure in daily activities, significant weight loss or gain, insomnia or excessive sleeping, lack of energy, inability to concentrate, feelings of worthlessness or excessive guilt and recurrent thoughts of death or suicide.
4. **Video Assisted Preoperative Teaching:** Teaching the patient regarding the normal functioning of heart, coronary artery disease, management of CAD, CABG and its preoperative and postoperative instruction, lifestyle modifications etc, through the video.
5. **Preoperative Self Instructional Booklet:** Teaching the patient regarding the normal functioning of heart, coronary artery disease, management of CAD, CABG and its preoperative and postoperative instruction, lifestyle modifications etc through the Instructional Booklet.

6. **Physiological Parameters:** This includes heart rate, respiration and blood pressure.

HYPOTHESIS

1. There will be a significant difference between Video Assisted Preoperative Teaching and Preoperative Self Instructional Booklet on reducing the Postoperative Anxiety, Depression and change in Physiological Parameters among patient subjected to CABG.

ASSUMPTIONS

1. Appropriate information and appropriate education may reduce the Anxiety and Depression.

CONCEPTUAL FRAME WORK

The conceptual frame work is based on the Betty Neuman's systems model(1982).According to this theory it mainly focuses on stress and stress reduction and is primarily concerned with the effects of stress on health. In this theory an individual is considered as a core system. Basic structures encompass the factors or energy sources necessary for client survival; they include factors common to all persons as well as those that are unique to each. These factors include Physiological, Psychological, Sociocultural, Developmental and Spiritual variables. The model consist of basic core structure are concentric circles, which include the lines of resistance and lines of defence. The flexible line of defence is dynamic and can be changed over a shorter period of time. It is considered as a protection for preventing stressors from breaking through the solid line of defence. An individual uses his flexible line of defence against possible reasons to stressors. Normal line of defence represents normal adaptation of the individual.

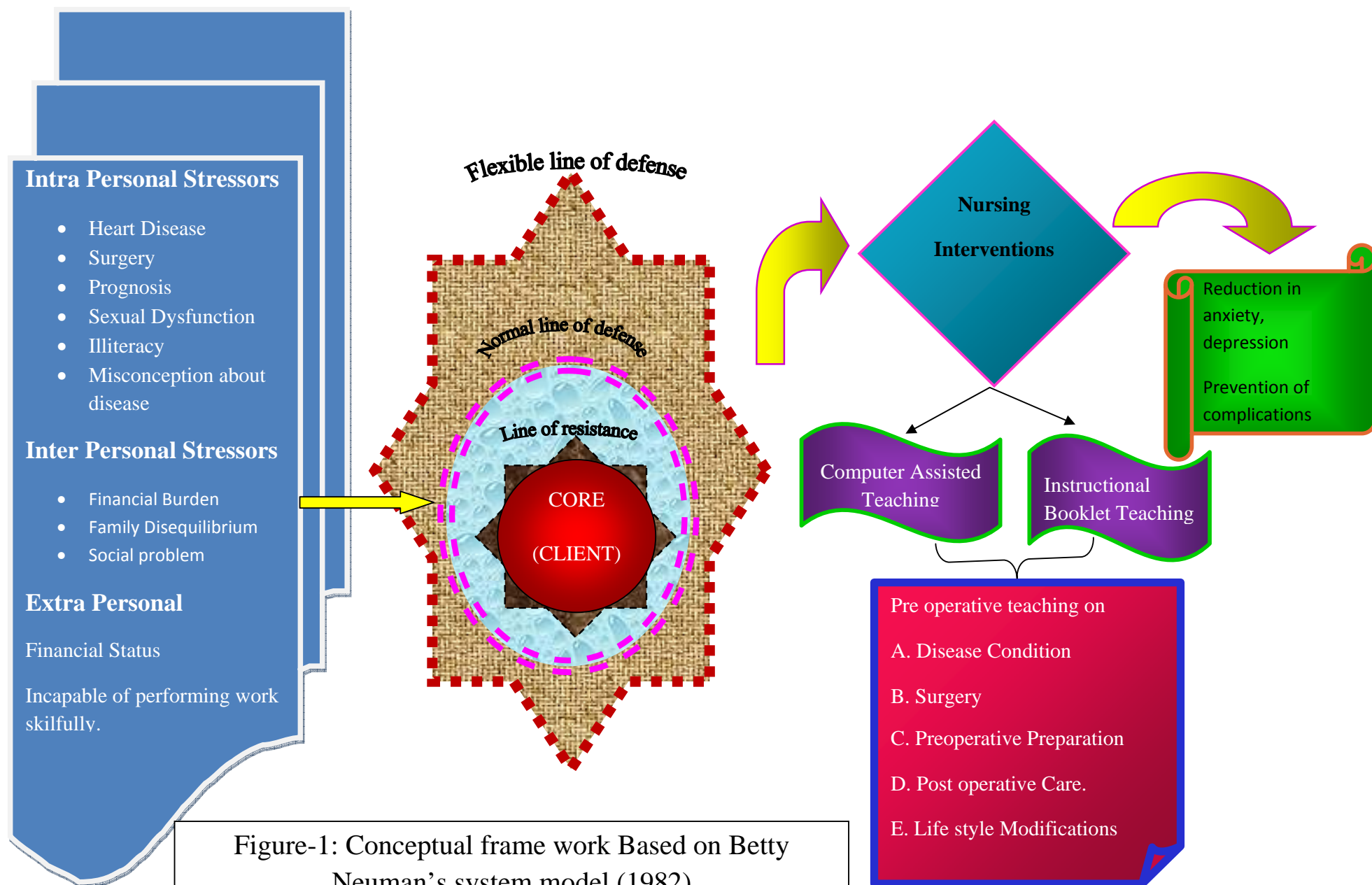
Betty Neuman describes a stressor as any environmental force that alters the system's stability. It includes any tension – producing stimulus that has the potential

to affect a person's normal line of defence. She classifies the stressors as intra personal, interpersonal and extra personal.

Coronary artery disease is the global health burden and coronary artery bypass graft is a major surgery, therefore the patient experience greater stress of the disease process, symptoms manifested, preoperative preparations, surgery, postoperative care, prognosis, misconceptions about their disease condition, lack of knowledge, spiritual distress are the intra personal stressors. The interpersonal stressors are financial burden, family disequilibrium and social rejection. And also the person will experience extra personal stressors such as fear about financial status and incapable of doing work skilfully. The above three stressors will influence the core system, surrounding normal and flexible line of defence resulting in increased level of anxiety, depression.

Betty Neuman also designed nursing process format for the use with her model. The format is having mainly three steps, nursing diagnosis, nursing goals and nursing outcomes. The nursing outcomes are determined by the nursing interventions through primary, secondary and tertiary prevention.

Nursing interventions like Video Assisted Preoperative Teaching and Preoperative Self Instructional Booklet on the disease process, pre and postoperative care, life style modifications, decrease the anxiety, depression.



CHAPTER II

REVIEW OF LITERATURE

Review of literature discussed in the following heading

- 1) Coronary Artery bypass Graft and its implications
- 2) Studies related to Anxiety and Depression and its interventions for this Anxiety and Depression.
- 3) Studies related to effect of preoperative teaching on Anxiety, Depression and Physiological parameters.

1) Coronary Artery bypasses Graft and its implications

Coronary artery bypass surgery, also coronary artery bypass graft (CABG pronounced cabbage) surgery, and colloquially heart bypass or bypass surgery is a surgical procedure performed to relieve angina and reduce the risk of death from coronary artery disease. The first coronary artery bypass surgery was performed in the United States on May 2, 1960, at the Albert Einstein college of Medicine-Bronx Municipal Hospital Centre by a team led by Dr. Robert Goetz and the thoracic surgeon, Dr. Michael Rohman with the assistance of Dr. Jordan Haller and Dr. Ronald Dee.

McMurray (2004) conducted a study on the discharge planning for successful recovery for the patients undergone coronary artery bypass graft. The study is saying that almost half of the patient experienced heart surgery as a huge shock and after the surgery adjusting to life was difficult. In that study all participants recommend to strengthen the discharge planning with more accurate information about the surgery and care.

Hunt (2002) investigated a study on patients' expectations and experiences about nursing care in the intensive care unit after the bypass surgery. This explains that the patient expected the nurse who is taking care of them should be experienced and should have good knowledge.

In 2005 Legaard & Fagermon had examined the men's and women's experience after CABG. The study reported that women are more vulnerable to losing their previous life style and experiencing a reduced ability to perform housework during the first 2 weeks after discharge. The study concluded with the interventions are needed to assist in recovery and improve the symptom management to prevent sleep, anxiety, depression and pain

Hussain., et.al (2006) explored the patient satisfaction and their expectation of care. The study showed that patients are experienced moderate to low level on satisfaction with nursing care. Patients also felt that nurses were good as they were very regular in routine works but the communication skill was poor. Patients recommended the nurses need to know the factor that influence patient satisfaction.

Duits.,et.al(1997) analysed the quality of life after coronary artery bypass surgery .The study explains that patient got high preoperative anxiety and depression scores were reported in predicting high levels of anxiety and depression after the surgery And it affects the recovery after the coronary artery bypass graft

Tolmie,et al.(2006) elicited the patient's experience of health and well being after CABG. The findings explained that all the patients improved health and well being after coronary artery bypass graft surgery. But the participants provided insights to improve the understanding of the impact of operation on the patient. The researcher explains that these insights will help them to anticipate the possible needs of future patients and able to develop appropriate intervention for the optimal recovery and health maintenance

Dunkley, and associates (2007)investigated the patient's and health professionals views of recovery after coronary artery bypass surgery. The study revealed that anxiety, depression, optimism and determination rehabilitation , social support are having a complex relationship and it affects the recovery. Findings indicated that by providing information, support, and reassurance especially for the patient who is having anxiety or depression facilitates good recovery from the surgery

Rantanen, et.al (2009) investigated about the Health- related quality of life after coronary artery bypass grafting. The findings revealed that patient quality of life was at its lowest one month after the operation and it improved only with the further follow up. These results directing us to the importance of interventions for the patients undergoing CABG surgery.

Doering,et al.(2002) investigated about the information needed for the patient recovering from the coronary artery bypass graft. The results elicited that more informations are needed for the surgery than they received before and after the surgery. Study saying that the patient's perceptions of care are an important part of the hospitalization experience after the surgery.

Sendelbach, and colleagues (2006) described that the older patients, Anxious patients and patient with new onset of atrial fibrillation are at risk of getting neurocognitive changes after coronary artery bypass graft surgery and also study suggesting that nursing interventions are needed for the anxiety and depression.

Mckinney and deny (2002) elicited the experience of patients feeling about their transfer from ICU to the ward after CABG surgery. It tells that prior to the transfer, patient accepted the transfer because of the desire to the normalcy, but also feared to go out of ICU .In the post transfer period patient is experiencing mixed feelings regarding the transfer and the patient suffered from the complaints like pain , sleep deprivation which will leads to fear and anxiety.

Keller (1997) cited the experience of coronary artery bypass surgery from the patients perspective. This study told us that the major thought that was there in patients mind following CABG surgery was whether they can achieve the normalcy which includes survival and restoration of health.

These all studies directing us to the learning needs of a patient before the surgery and also about the importance of support they needed for the better recovery from the surgery.

2) Studies related to anxiety and depression and interventions for this anxiety and Depression

Douki.,et.al(2011) conducted a study on anxiety before and after coronary artery bypass grafting surgery: relationship with quality of life. The study is explain that anxiety is considered to be a risk factor for surgical outcome, development for the cardiac diseases. The patients who are more anxious are having more postoperative pain and it also influences the quality of life of patient.

Rosenfeldt.,et al(2011) done a study on physical conditioning and mental stress reduction-A randomised control trial in patients undergoing cardiac surgery.The study gives us the information that anxiety is a predictor of poor recovery from the cardiac surgery. Depression is more common after the surgery and the anxiety, depression and stress are associated with greater morbidity after the cardiac surgery. Long waiting period for the surgery also will exacerbate anxiety and stress and it affects the physical and social functioning. And also the preoperative anxiety and postoperative depression increases the postoperative readmissions to the hospital. Therefore the preoperative waiting period should include education, encouragement to achieve behavioural changes, regular exercise and relaxation training.

Akbarzadeh.,et al (2009)states that the patients who are subjected to CABG is more anxious means,it my increase the mortality and morbidity. The preoperative teaching or reassurance helps to decrease the anxiety

Tully.,(2007) conducted a study on anxiety and depression as risk factors for mortality after coronary artery bypass graft surgery. The study revealed that preoperative anxiety symptoms were associated with increased mortality risk.

Gallagher,R and Mckinley,S (2007) cited in their study the patients waiting or CABG should be routinely assessed for the anxiety before the procedure, and interventions should be provided to prevent or reduce anxiety. Interventions include information and support for pain management and realistic information about the surgery.

Koviula., et al. (2001) investigated about the fear and social support in hospital for coronary artery bypass grafting on the day before surgery. The main purpose of the study was the amount of hospital support got by the coronary artery bypass graft surgery patients and its impact on the patient's feelings of fear anxiety. In this study the tool used was hospital anxiety depression scale. The results expressing that high level social support from the nurses effectively reduce fear and anxiety.

Murphy and colleagues (2008) assessed anxiety and depression after the coronary artery bypass surgery. Main aim of the study was to target the interventions to the patients at risk for the poor outcomes after the surgery and also identify the patients are at risk. In this study the anxiety and depression were measured by hospital anxiety depression scale and the result showing that some patients experienced worsening of depression after bypass graft surgery and the investigator suggesting that interventions can be targeted to the patients at risk

Zhang, et al (2012) investigated the impact of Nurse initiated preoperative education on post operative anxiety symptoms and complications after CABG. The study targeted to improve the clinical outcomes followed by CABG by preventing the significant preoperative complications and postoperative anxiety. Intervention they have given to reduce the post operative anxiety was preoperative education and counselling on postoperative complications and anxiety symptoms. Anxiety symptoms assessed with Zung's self rating anxiety scale. The study finding showed that there is reduced rate of perioperative anxiety and complications with this education and counselling.

Simpson and Stewart,M (2010) done a systematic review on preoperative predictors of postoperative depression and anxiety in individuals who have undergone coronary artery bypass graft.46 studies were identified in search of electronic data bases. After the appraisal of these studies, it reveals that a symptom of depression and anxiety is exhibited after the CABG surgery. The findings showed that a range of pre operative predictors of postoperative depression and anxiety in CABG patients among these the important are preoperative anxiety and depression.

Rymaszewska., and associates (2003) cited in their study that the heart surgery is triggering certain emotional responses like anxiety and depression when the patient

appear for the first time for the surgery. The main aim of the study was to do overview on the incidence and course of anxiety and depression in patients with CABG. The study explains that high level of preoperative anxiety and depression is a predictor of postoperative psychological outcome. So the preoperative assessments helps to identify the patients at risk for the postoperative anxiety and depression and the counselling and education can be able to reduce these psychological problems.

Szekely., et al (2007) explored the long term effect of anxiety and depression on the outcome of surgery. The result of this study giving the fact like assessment of psychosocial factors especially anxiety would help in identifying the risk of mortality and cardiovascular morbidity after the cardiac surgery. Anxiety is highly correlated with increased mortality and morbidity because negative influence of psychological stressors increases the risk of cardiovascular diseases

Akbarzadeh,, et al. (2009) published a study on the effect of preoperative information and reassurance in decreasing anxiety of patients who are candidate of coronary artery bypass graft surgery. The tool they used as Spilberger anxiety test and the findings explaining that patient with mid anxiety, the anxiety is increased and patient with moderate to severe anxiety, the anxiety level decreased.

Asilioglu, (2004) investigated about the effect of preoperative education on anxiety of cardiac patients. In this study mainly they aimed at to evaluate effect of teaching method in open cardiac patients. This study consist of 100 samples among that 50 were placed in interventional group and 50 were in control group. Samples were assessed by State Trait Anxiety Inventory. The mean of State Trait Anxiety score was high in control group than the interventional group and also all patients in the interventional group stated that they were satisfied with the education.

Demaria,(2003) conducted study on the depression and anxiety and outcomes of coronary artery bypass surgery. The study explains that the anxiety and depression reliably predict the occurrence of psychopathology and also shown that patient with depression are more likely to experience poor outcomes from the surgery. In this study the investigator reported that the presence of depressive symptoms are

positively related with the readmission rate after the surgery. The study concludes with patients undergoing CABG surgery is needed to treat for the psychological distress

Freedland,(2009) investigated about the treatment of depression after coronary artery bypass graft surgery. The main aim of the study was to test the efficacy of non pharmacological interventions for depression after the bypass surgery compared with care given usually. They assessed the depression with the Hamilton rating scale for depression. The findings showed that that behaviour therapy and supportive stress management are more effective for treating the depression after the bypass surgery.

Mattera et.al (2009) assessed the health status of the patients with depressive symptoms after the coronary artery bypass graft surgery. The main objective of the study was to evaluate the presence of clinically relevant anxiety and depression in patient before and after CABG and also they evaluated the relationship to age. In this study the sample size was 142 persons who underwent CABG and also they assessed the anxiety and depression by hospital anxiety depression scale. The result showing that there is negative correlation with the age and also higher level of depression are high risk factor for the lack of functional benefits after the CABG.

Burg,(2003) conducted a study on the presurgical depression predicts medical morbidity after coronary artery bypass graft surgery. Here the depression has been related to poor prognosis in patient with coronary artery disease. The main aim of the study was to determine the contribution of presurgical depression to outcome after CABG. The tool they used was Beck depression inventory. The findings concludes that depression is an independent contributor to medical and psychosocial morbidity after CABG.

Rafanelli,C(2006) investigated that the minor depression is causing any risk on the patient after the coronary artery bypass graft surgery. The study mainly directed to assess the clinical and subclinical distress in patient who underwent bypass surgery and also to investigate relationship between psychological variables and coronary events. Here the data suggest minor depression is risk factor for CABG patients.

4) Studies related to effect of preoperative teaching on anxiety and depression.

Towell,A., & Nel,E.(2010) investigated about preoperative education programme for patients undergoing coronary artery bypass surgery. In this study the preoperative study have been shown to relieve the anxiety and produce better outcome after the surgery.

Asilioglu, (2004) did a study on the effect of giving education on preoperative period on anxiety among patients suggested for coronary artery bypass graft surgery. The main aim of the study was to evaluate the effect of preoperative teaching on anxiety level of the patient subjected to coronary artery bypass graft surgery. The sample size was 100 and 50 each in control group and experimental group.They assessed the anxiety by using State Trait Anxiety inventory. In this study they got the result as there was no statistically significant difference in the anxiety kevel but the patients who all are there in the experimental group stated that they were satisfied with the teaching which is given by the investigator

Weert, (2001) did a study on interdisciplinary preoperative patient education in cardiac surgery. In this study the information exchange between the patient and providers were videotaped and analysed. The result showing that there is a gap found in giving educational information and emotional support that is needed to establish effective patient education. This study gives the idea to develop the guidelines needed for the education.

Watson,et.al(2004)conducted a study on impact of preoperative education on pain outcomes after coronary artery bypass graft surgery. The purpose of the study was to evaluate the effect of pre operative education on reduction of pain and on the related activities. So the study concluded that the intervention did not result in a clinically significant improvement in pain management outcomes but it helped to improve the post surgery activities.

Deyirmenjian,(2006) conducted s study on the preoperative education for the open heart surgery patients. The purpose of the study was to assess the impact of preoperative patient education for the patient undergoing open heart surgery. Anxiety

was assessed by Beck Anxiety Inventory. In this study patient education was not giving any benefits to the patients.

Katz, et.al (2003) conducted a study on psycho educational intervention for the cancer patient. It proved that educational booklet helps to decrease the psychosocial burden and improved their activities.

Arthur, H.M and Daniels, C. (2000) conducted a study on the effect of preoperative information on the postoperative recovery and functional abilities. The study proved that there is a positive effect on the early recovery phase, quality of life and functional abilities in the experimental group.

Redman (1993) states that patient education is an integral part of the quality patient care especially for the patients with cardiovascular patients.

O'Connor and colleagues (1994) was forwarded with a study on enhancing the surgical nurse patient education, development and evaluation of an intervention. The study findings revealed that the patient who received education experienced shortened postoperative hospital stays and also decreased use of sedatives and hypnotics.

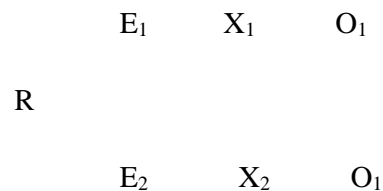
CHAPTER III

METHODOLOGY

This chapter deals with research design, variables under study, setting of the study, population of the study, sample size, criteria for selection of the sample, sampling technique, description of the tool validity, reliability, description about the interventions and data collection procedure.

RESEARCH DESIGN

Post Test Only Experimental Design was adopted for this study.



E₁ -experimental group-1 received Video assisted Preoperative teaching

E₂ -experimental group-2 received Preoperative Self Instructional Booklet.

O₁ -post test assessment of Post operative Anxiety, Depression and Physiological parameters

R -randomization

X₁ -Video Assisted Preoperative Teaching

X₂ - Preoperative Self Instructional Booklet

VARIABLES UNDER STUDY

In this study Video Assisted Preoperative Teaching and Preoperative Self Instructional Booklet are the independent variables and Postoperative Anxiety, Depression and Physiological parameters are the dependent variables.

SETTING OF THE STUDY

This study was conducted in Cardiothoracic Unit of Kovai Medical Centre and Hospital Coimbatore. It is a 800 bedded multi speciality hospital. The unit consists with all amenities. Cardiothoracic unit is a 50 bedded unit. On average, the number of CABG performed is about 50-60 per month.

POPULATION

The population for this study was all the patients subjected to CABG.

SAMPLE SIZE

The sample size was 60. Among 30 subjects were in Video Assisted Teaching Group and remaining 30 in Self Instructional Booklet Group.

SAMPLING TECHNIQUE

Non probability convenient sampling technique was used.

SELECTION CRITERIA

The subjects were selected on the basis of following criteria.

INCLUSION CRITERIA:

1. Adult patients both male and female subjected to CABG.
2. Both female and male between the age group of 40-70 years.
3. Patient underwent surgery with the aid of heart lung machine or without the aid of heart lung machine
4. Patient who can read ,write and speak Malayalam or Tamil or English.

EXCLUSION CRITERIA

1. Patients subjected to emergency CABG
2. Patients admitted for second time for CABG
3. Patient who were diagnosed to have depression or any other psychiatric illness.
4. Patients with either visual or hearing impairment.
5. Patients who were illiterates
6. Patients who were with cognitive impairment

MANIPULATION

Manipulation was done by giving Preoperative education with Video and Preoperative Self Instructional Booklet. After giving education Preoperatively the investigator examined Postoperative Anxiety , Depression and Physiological parameters.

RANDOMIZATION

The 60 subjects were divided into 2 groups by randomization and 30 subjects were there in each group. Randomization was done by lottery method. The investigator prepared 2 lots. The lot written as 'E₁' was considered as the group received Video Assisted Preoperative Teaching and the lot 'E₂' was considered as the group received Preoperative Self Instructional Booklet. The nursing supervisor in the Cardiothoracic ward asked to take one lot at a time and based on this, patient were assigned to Video Assisted Teaching Group and Self Instructional Booklet Group.

DESCRIPTION OF THE TOOL

The instrument consist of three sections.

- Section-I : Demographic proforma
Section-II : Hospital Anxiety Depression Scale (HAD)
Section-III : Physiological variables

SECTION-I : DEMOGRAPHIC PROFORMA

Demographic profile included age ,sex, education, nature of work, duration of illness and area of residence.

SECTION-II : HOSPITAL ANXIETY DEPRESSION SCALE.

Hospital Anxiety Depression Scale (HAD) been developed by Zigmond and Snaith (1983).The tool was used to measure the Anxiety and Depression in adults. It is a Self reporting psychometric test. It consists of 14 statements in which 7 statements are to measure the anxiety level and the other statements are to measure the depression level.

SCORING PROCEDURE

HAD is a four point scale. Responses include Yes definitely, Yes sometimes, no not much, no not at all with a score of 0, 1, 2, 3 respectively. The score 11+ indicate higher anxiety or depression.

Score interpreted as

No anxiety - 0-7

Borderline case - 8-10

Case - 11+

SECTION –III PHYSIOLOGICAL VARIABLES

Physiological variable includes Pulse, Respiratory rate and Blood pressure in postoperative period.

TESTING OF THE TOOL

VALIDITY OF THE TOOL

The Hospital Anxiety Depression Scale(HAD) is a highly valid and is universally accepted tool. Watson and colleagues (1991) reported that the tool was valid and also in 1991 Moore and associates has well documented that they were

checked the internal consistency and high correlations were reported in this tool. The investigator translated the tool to Tamil and Malayalam. The Tamil and Malayalam translated tool were validated by 5 experts from the field of nursing, psychology and medicine.

RELIABILITY OF THE TOOL

In 1983 Zigmond and Snaith tested the scale for validity with good results. Severity ratings correlated highly with psychiatric assessments, the r 'value was 0.70 for depression and for the anxiety, $r=0.74$. In 1987 Aylard, Gooding, McKenna & Snaith reported correlation with other depression and anxiety scales ranging from 0.67 to 0.77. The investigator translated the tool to Tamil and Malayalam. Reliability of the translated tool were tested by using test and retest method. The reliability score for Tamil and Malayalam version were 0.78 and 0.81 respectively.

PILOT STUDY.

A pilot study was conducted for a period of one week among 6 patients. Out of that 3 patients were considered as Experimental group and 3 were considered as control group. The pilot study reveals the feasibility and practicability of the study.

DATA COLLECTION PROCEDURE.

The investigator obtained formal permission from the chairman of KMCH, to conduct the study. The investigator got the list of patients posted for surgery and eligible subjects were contacted on the day of admission. A brief description about the study and the purposes were explained to the patient after establishing a good rapport, the investigator collected the demographic data.

The Postoperative Anxiety and Depression were assessed by using the Hospital Anxiety Depression Scale. Physiological parameters also were measured. The subjects in the Video Assisted Teaching Group and subjects in the Self Instructional Booklet Group. On the 3rd postoperative day, the Post operative Anxiety, Depression and Physiological parameters were assessed for both groups. Per day 4-5

teaching were done. Postoperative Anxiety, Depression and Physiological parameters were assessed 3-4 per day.

STATISTICAL ANALYSIS

Demographic variables were analysed by using descriptive statistics. Independent t'test was used to prove the effectiveness of Video Assisted Preoperative Teaching and Preoperative Self Instructional Booklet on Postoperative Anxiety, Depression and Physiological parameters. Correlation was used to assess the relationship between Postoperative Anxiety and Postoperative Depression and also to assess the relationship between Postoperative Anxiety and Postoperative Blood pressure. To find the association between the demographic variables and Postoperative Anxiety, Depression anova and independent t' tests were used.

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with analysis of data collected, which is tabulated and presented as follows:-

- Section-I** : Description of demographic characteristic of the patients subjected to CABG.
- Section-II** : Comparison of effectiveness of Video Assisted Pre-operative Teaching and Preoperative Self Instructional Booklet on Postoperative Anxiety and Depression.
- Section III** : Comparison of effectiveness of Video Assisted Pre-operative Teaching and Preoperative Self Instructional Booklet on Physiological Parameters.
- Section-IV** : Correlation between the Postoperative Anxiety and Depression, Mean Arterial Pressure of the patients subjected to CABG..
- Section-V** : Association between Postoperative Anxiety and Depression with demographic variables.

SECTION-I

Description of demographic characteristic of the patients subjected to CABG.

Table-1

Distribution of the patients subjected to CABG, according to their demographic characteristics.

SL.NO	Characteristics	Video Assisted Teaching Group N = 30		Self Instructional Booklet Group N= 30	
		N	%	N	%
1.	Age in Years.				
	a) 40-50	6	20.0	7	23.3
	b) 50-60	8	26.7	10	33.3
	c) 60-70	16	53.3	13	43.3
2.	Sex				
	a) Male	22	73.3	26	86.7
	b) Female	8	26.7	4	13.3
3.	Education				
	a) Primary	6	20.0	9	30.0
	b) Secondary	13	43.3	13	43.3
	c) Degree/diploma	11	36.7	8	26.7
4.	Nature of Work				
	a) Sedentary	24	80	20	66.7
	b) Moderate	6	20	9	30.0
	c) Heavy			1	3.3
6.	Duration of Illness (months)				
	a) Upto 12	30	100	27	90.0
	b) 13-24			3	10.0
7.	Area of Residence				
	a) Rural	9	30	9	30.0
	b) Urban	21	70	21	70.0

In Table-1 regarding the age, most of the subjects in both the group were between 60-70 years. About the sex, in the Video Assisted Teaching Group, 73.3% of the subjects were males and 26.7% were females and in the Self Instructional Booklet Group, 86.7% were males and 13.3% were females. Among two groups most of the subjects were males. Regarding to the educational status, most of the subjects 13(43.3%) in the Video Assisted Teaching Group and 13(43.3%) in the Self Instructional Booklet Group had secondary education. Eleven (36.7%) in the Video Assisted Teaching Group and 8(26.7%) in the Self Instructional Booklet Group completed degree or diploma and there were no illiterates. In respect of the nature of work, majority of the subjects 24(80%) in Video Assisted Teaching Group and 20(66.7%) in the Self Instructional Booklet Group were sedentary workers. Considering the duration of illness in the Video Assisted Teaching Group and Self Instructional Booklet Group, the majority 30(100%) and 27 (90%) respectively were having illness up to 12 months. According the area of residence majority of the subjects in both groups were from urban areas.

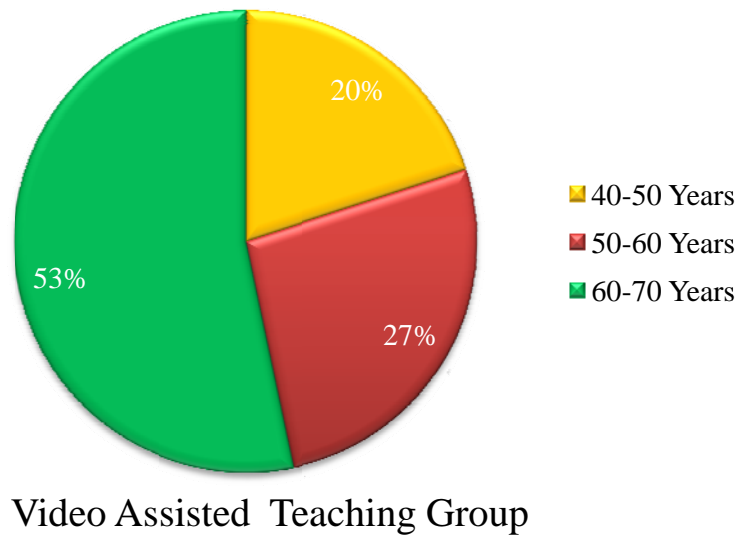


Figure-2: Distribution of the subjects in Video Assisted Teaching Group according to their age

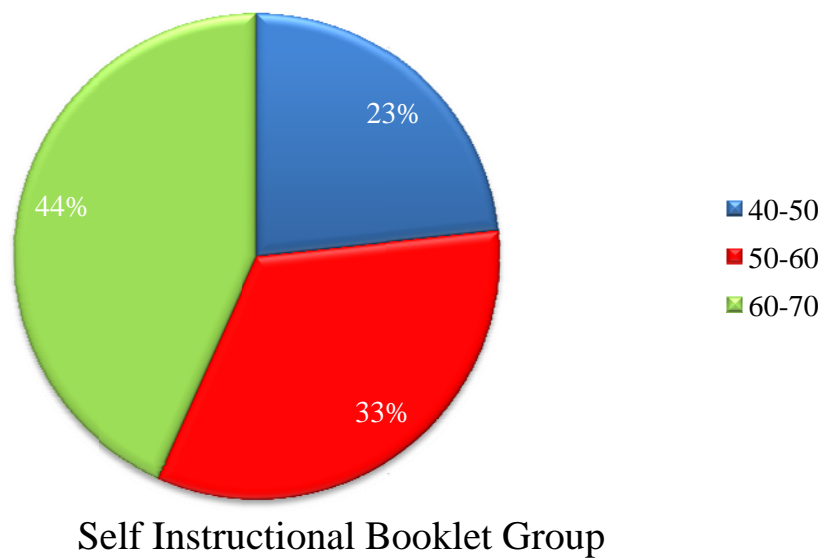
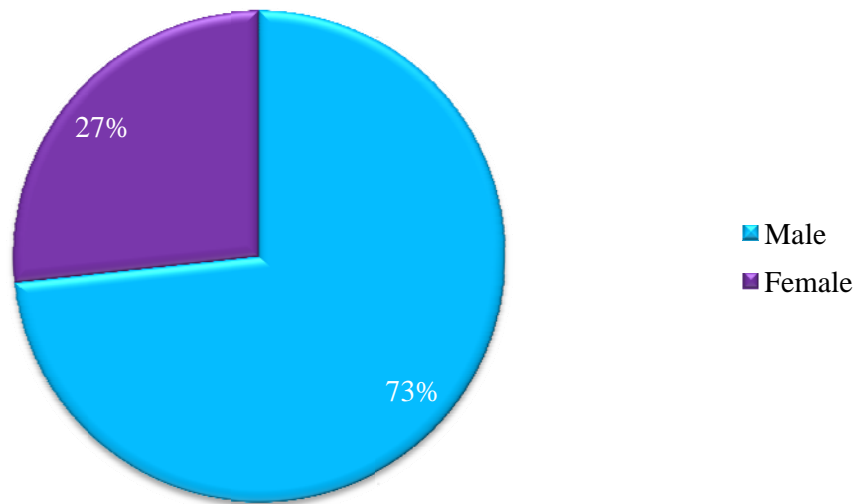
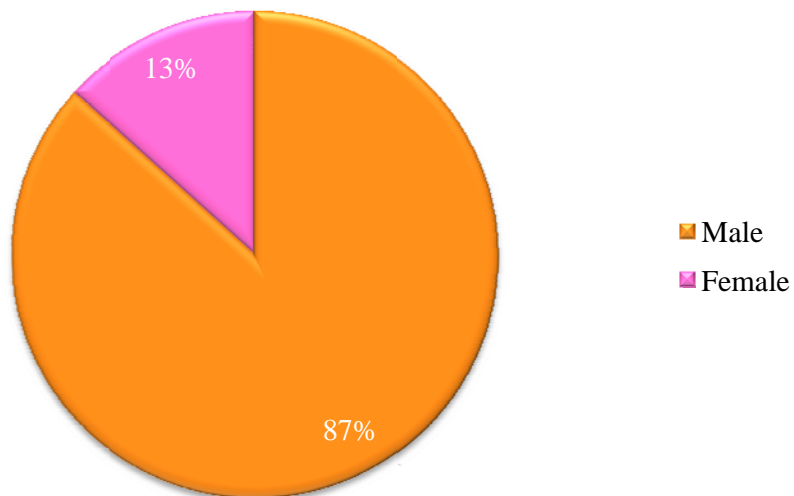


Figure-3: Distribution of the subjects in Self Instructional Booklet Group according to their age



Video Assisted Teaching Group

Figure-4 : Distribution of subjects in Video Assisted Teaching Group according to their sex.



Self Instructional Booklet Group

Figure-5 : Distribution of subjects in Self Instructional Booklet Group according to their sex.

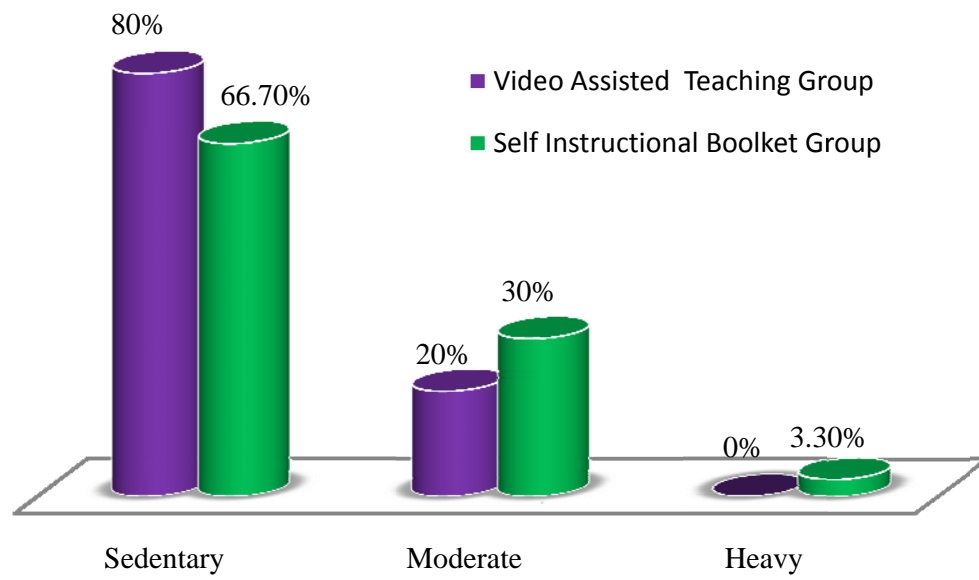


Figure-6: Distribution of the subjects according to their nature of work in both the groups

SECTION-II

Comparison of effectiveness of Video Assisted Preoperative Teaching and Pre operative Self Instructional Booklet on Postoperative Anxiety and Depression.

Table-2

Comparison of Postoperative Anxiety scores of the subjects in Video Assisted Teaching Group and Self Instructional Booklet Group

Sl.No	Groups	Postoperative Anxiety			t' value
		N	Mean	S.D	
1	Video Assisted Teaching Group	30	4.57	1.50	6.74**
2	Self Instructional Booklet Group	30	7.67	2.02	

• Note: **significant at 0.01 level

In Table-2, the obtained t' value was 6.74 for Postoperative Anxiety of Video Assisted Preoperative Teaching and Preoperative Self Instructional Booklet which was significant at 0.01 level. It was found out that there was a significant difference between Video Assisted Preoperative Teaching and Preoperative Self Instructional Booklet on reducing Postoperative Anxiety. By comparing the mean scores of Video Assisted Preoperative Teaching ($\bar{X} = 4.57$) were had a better impact on reducing the Postoperative Anxiety than Preoperative Self Instructional Booklet ($\bar{X} = 7.67$).

Table- 3

Comparison of Postoperative Depression scores of the subjects in Video Assisted Teaching Group and Self Instructional Booklet Group

Sl.No	Groups	Postoperative Depression			t' value
		N	Mean	S.D	
1	Video Assisted Teaching Group	30	4.80	1.54	5.01**
2	Self Instructional Booklet Group	30	7.30	2.26	

**significant at 0.01 level

In Table-3, The obtained t' value for Postoperative Depression of the Video Assisted Teaching and Self Instructional Booklet Group were 5.01 and this t' value was significant at 0.01 level. Hence it revealed that there was a significant difference found between Video Assisted Preoperative Teaching and Preoperative Self Instructional Booklet. When comparing the mean scores of Video Assisted Preoperative Teaching (\bar{X} = 4.80) had a better effect on reducing Postoperative Depression than the Preoperative Self Instructional Booklet (\bar{X} = 7.30).

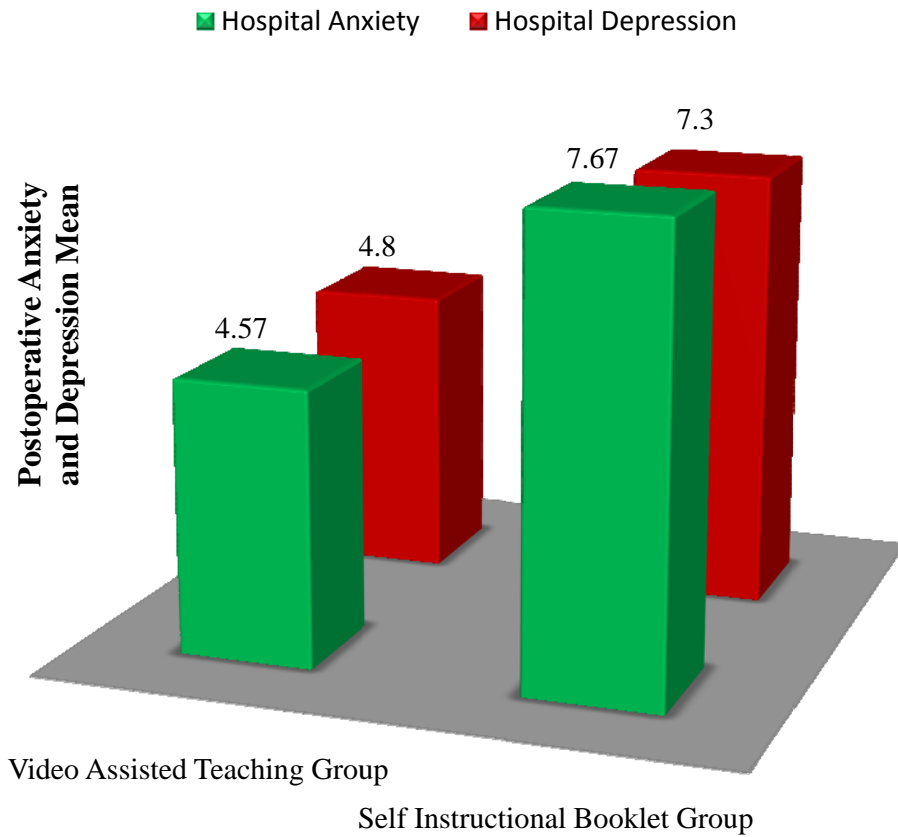


Figure-7: Comparison of mean scores of the Postoperative Anxiety and Depression between the subjects in Video Assisted Teaching Group and Self Instructional Booklet Group

Section III

Comparison of effectiveness of Video Assisted Pre-operative Teaching and Preoperative Self Instructional Booklet on Postoperative Physiological parameters

Table – 4

Comparison of Postoperative Physiological parameters of the subjects in Video Assisted Teaching Group and Self Instructional Booklet Group.

SL. No	Variables	Video Assisted Teaching Group			Self Instructional Booklet Group.			t' value
		N	Mean	S.D	N	Mean	S.D	
1.	Postoperative Pulse rate	30	87.67	7.64	30	95.67	8.45	3.84*
2.	Postoperative Respiratory rate	30	23.3	2.99	30	26.06	3.53	3.24**
3.	Postoperative Mean arterial pressure	30	104.4	11.07	30	100.67	11.18	0.26(NS)

Note: **significant at <0.01 level.* significant at <0.05 level.

Table-4 The obtained t' value for Pulse rate in postoperative period of the subjects in Video Assisted Teaching and Self Instructional Booklet Group were 3.84, it was significant at <0.05 level. Hence it reveals that there was a significant difference that exist in the Postoperative period Pulse rate of the subjects in Video Assisted Teaching Group and Self Instructional Booklet Group. By comparing the mean scores, it

was suggested that the Video Assisted Preoperative Teaching($\bar{X} = 87.67$) had more influence on Postoperative period Pulse rate than Preoperative Self Instructional Booklet ($\bar{X} = 95.67$) .

The t' value obtained for the Postoperative period Respiratory rate of the subjects in Video Assisted Teaching and Self Instructional Booklet Group were 3.24 and it was significant at 0.01 level. It states that there was significant differences that exist among Postoperative period Respiratory rate of Video Assisted Preoperative Teaching and Preoperative Self Instructional Booklet. This was explained that Video Assisted Preoperative Teaching ($\bar{X} = 23.3$) had more influence on Postoperative period Respiratory rate than Preoperative Self Instructional Booklet($\bar{X} = 26.06$).

The t' value of 0.26 obtained between both Video Assisted Teaching Group and Self Instructional Booklet Group on Postoperative period Blood pressure was not significant. Hence it is evident that there was no significant difference in both interventions on Blood pressure in the postoperative period.

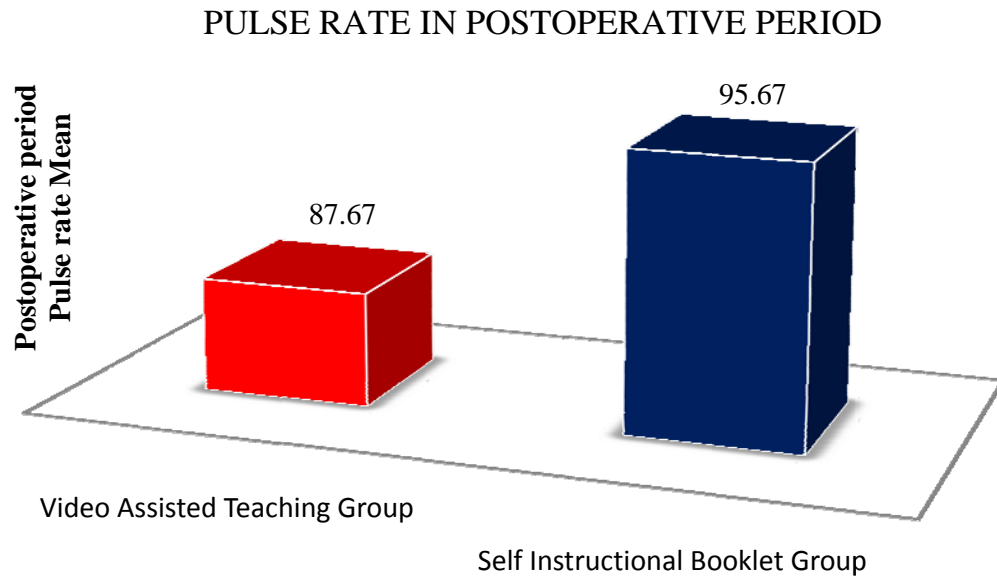


Figure-8: Comparison of Postoperative Pulse rate of subjects in Video Assisted Teaching Group and Self Instructional Booklet Group

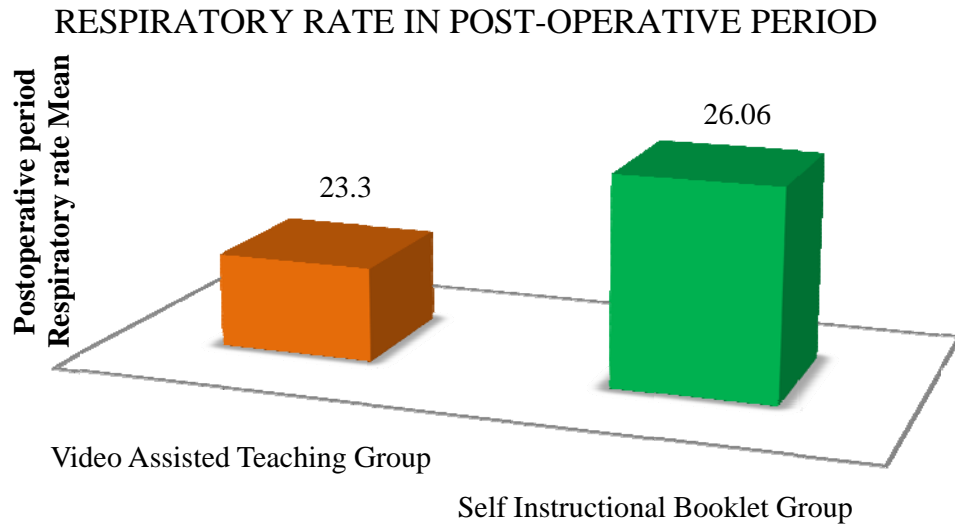


Figure-9: Comparison of Postoperative period Respiratory rate of subjects in Video Assisted Teaching Group and Self Instructional Booklet Group.

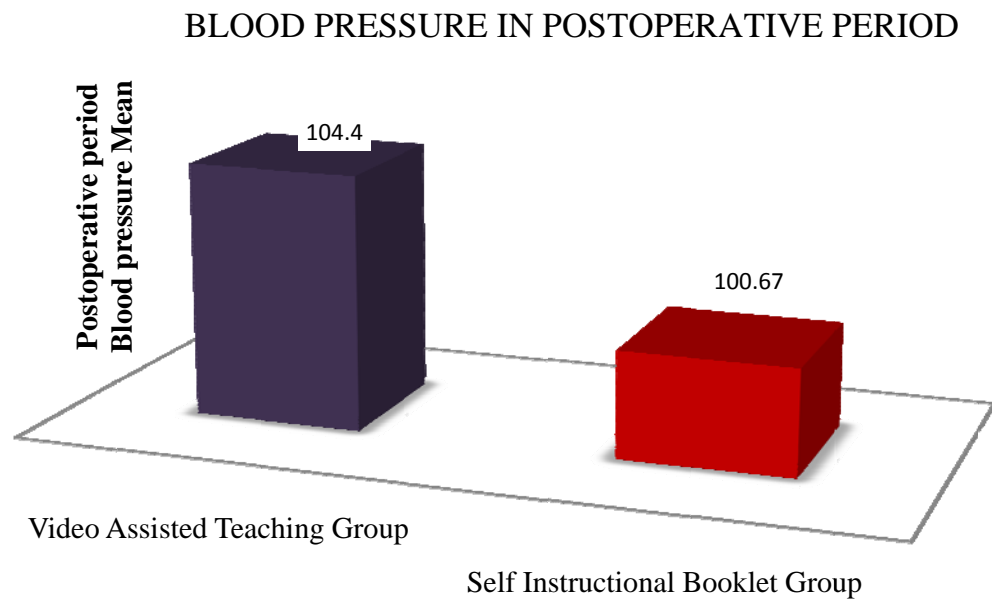


Figure-10: Comparison of Postoperative period Blood pressure of subjects in Video Assisted Teaching Group and Self Instructional Booklet Group

SECTION-IV

Correlation between the Postoperative Anxiety and Depression, Mean arterial pressure of subjects with CABG.

Table -5

Correlation between the Postoperative Anxiety and Depression, Mean arterial pressure of patients subjected to CABG.

Sl.No	Variables	N	Mean	S.D	r'value
1	Postoperative Anxiety	60	5.52	1.53	0.627**
	Postoperative Depression	60	6.05	2.29	
2	Postoperative Anxiety	60	5.52	1.53	0.269*
	Postoperative MAP	60	101.25	10.97	

*Significant at $p < 0.05$, **Significant at $p < 0.01$

Table-5 shows that Postoperative Depression, and Postoperative Mean arterial pressure had relationship with Postoperative Anxiety of patients subjected to CABG. To specify in order, Postoperative Anxiety had significant positive relationships with Postoperative Depression ($r = 0.627^{**}$) and Postoperative Mean arterial pressure ($r = 0.269^{*}$).

SECTION-V

Association between Postoperative Anxiety and Depression with demographic variables

Table-6

Association between Postoperative Anxiety of patients subjected to CABG and selected demographic variables

N=60

Groups	Demographic variables	Postoperative Anxiety		One way anova 'F'
		Mean	S.D	
Video Assisted Teaching Group	Age			0.422 (NS)
	a) 40-50	5.00	0.894	
	b) 50-60	4.25	1.035	
	c) 60-70	4.69	1.887	
	Education			1.183 (NS)
	a) Primary	4.50	1.049	
	b) Secondary	4.31	1.182	
	c) Degree/diploma	5.09	2.023	
Self Instructional Booklet Group	Age			1.152 (NS)
	a) 40-50	6.71	2.360	
	b) 50-60	8.20	1.398	
	c) 60-70	7.77	2.204	
	Education			1.111 (NS)
	a) Primary	8.33	1.803	
	b) Secondary	7.69	2.057	
	c) Degree/diploma	6.88	2.167	

In Table – 6. The obtained “F” value for various age groups in the Video Assisted Teaching Group and Self Instructional Booklet Group were 0.422 and 1.152 respectively. The obtained ‘F’ was not significant at any level and it reveals that

there was no significant difference in Postoperative Anxiety among subjects in various age groups and it concluded that age had no impact on Postoperative Anxiety.

The obtained “F” value for the educational level of the subjects in Video Assisted Teaching Group and Self Instructional Booklet Group were 1.183 and 1.111 respectively. The obtained “F” value was not significant at any level and it explains that there was no significant difference in Postoperative Anxiety among subjects there in various educational level. Hence it was concluded that education had no impact on Postoperative Anxiety

Table- 7

Association between Post operative Anxiety of the patients subjected to CABG and their Sex.
N=60

Groups	Postoperative Anxiety			“t” value
	Sex	Mean	S.D	
Video Assisted Teaching Group	Male	4.36	1.560	1.240 (NS)
	Female	5.13	1.246	
Self Instructional Booklet Group	Male	7.46	2.083	1.443(NS)
	Female	9.00	0.816	

In Table-7, The obtained t’ values between males and females in Video Assisted Teaching Group and Self Instructional Booklet Group were 1.240 and 1.443 respectively. These values were not significant at any level. Hence it concluded that there was no influence of sex on Postoperative Anxiety among subjects in both groups

and it was obvious that there was no relationship found between sex and Postoperative Anxiety.

Table-8

Association between Postoperative Depression of patients subjected to CABG and selected demographic variables. **N=60**

Groups	Demographic variables	Postoperative Depression		One way anova 'F
		Mean	S.D	
Video Assisted Teaching Group	Age			0.067 (NS)
	a) 40-50	4.83	1.169	
	b) 50-60	4.63	1.188	
	c) 60-70	4.88	1.857	
	Education			2.187 (NS)
	a) Primary	5.33	0.816	
	b) Secondary	4.15	1.144	
	c) Degree/diploma	5.27	2.055	
Self Instructional Booklet Group	Age			1.331 (NS)
	a) 40-50	6.14	2.854	
	b) 50-60	7.90	1.663	
	c) 60-70	7.46	2.259	
	Education			1.262 (NS)
	a) Primary	7.89	1.900	
	b) Secondary	7.54	2.222	
	c) Degree/diploma	6.25	2.605	

In Table-8, The table shows the “F” value for various age groups of the subjects in Video Assisted Teaching Group and Self Instructional Booklet Group were 0.067 and 1.331 respectively. The obtained “F” values were not significant at any level and it reveals that there was no significant difference in Postoperative

Depression among subjects in both groups of various age groups and it concluded that age had no effect on Postoperative Depression.

Regarding education, the obtained “F” value for the educational level of the subjects in Video Assisted Teaching Group and Self Instructional Booklet Group were 2.187 and 1.262 respectively. The obtained “F” value was not significant at any level and it explains that there was no significant differences in Postoperative Depression among subjects in both groups were there in various educational level. Hence it concluded that education had no impact Postoperative Depression.

Table- 9

Association between Postoperative Depression score of patients subjected to CABG and their Sex.

N=60

Group	Sex	Postoperative Depression		“t” value
		Mean	S.D	
Video Assisted Teaching Group	Male	4.55	1.535	1.536 (NS)
	Female	5.50	1.414	
Self Instructional Booklet Group	Male	7.15	2.395	0.900 (NS)
	Female	8.25	0.500	

Table-9, The obtained t' values between males and females in Video Assisted Teaching Group and Self Instructional Booklet Group were 1.536 and .900 respectively. These values were not significant at any level. Hence it concluded that there was no influence of sex on Postoperative Depression among subjects in both groups and it is obvious that there were no relationships that exist between sex and Postoperative Depression.

CHAPTER -V

DISCUSSION, SUMMARY, CONCLUSION, IMPLICATIONS, LIMITATION AND RECOMMENDATIONS.

DISCUSSION

The present study was aimed to evaluate the effectiveness of Video Assisted Preoperative Teaching and Preoperative Self Instructional Booklet on Postoperative Anxiety, Depression and Physiological Parameters among patients subjected to CABG.

To find out the effectiveness of Video Assisted Preoperative Teaching and Preoperative Self Instructional Booklet, the researcher In this study the researcher selected 2 groups, patients in Group-1 received teaching with Computer and in Group-2 received Preoperative Self Instructional booklet. Out of 30 subjects in the Video Assisted Teaching Group, 22(73.3%) were males. Among them 16 (53.3%) were between the age group of 60-70 years, 8(26.7%) were between 50-60 years and 6(20%) between 40-50years.Regarding the education, 13(43.3%) had secondary education, 11(36.7%) had degree or diploma and 6(20.0%) had primary education.

In the Self Instructional Booklet Group, out of 30 subjects 26(86.7%) were males and 4(13.3%) were females. Among them 13 (43.3%) were between the age group of 60-70 years, 10(33.3%) were between 50-60 years and 7(23.3%) between 40-50years.Regarding the education, 13(43.3%) had secondary education, 8(26.7%) had degree or diploma and 9(30.0%) had primary education.

The data were analysed and they were based on the objectives as follows.

The first objective of the study was to compare the effectiveness of Computer Assisted Preoperative Teaching and Preoperative Self Instructional Booklet on the Postoperative Anxiety, Depression and Physiological Variables.

In order to determine the effectiveness of both the intervention, the investigator assessed the Postoperative Anxiety, Depression after the administration

of educational intervention by using Hospital Anxiety Depression scale and also assessed Physiological Parameters of the patients subjected to CABG in postoperative period..

The comparison of Postoperative Anxiety scores of the Video Assisted Teaching Group and Self Instructional Booklet Group. The obtained t' value was 6.74 for Postoperative Anxiety of Video Assisted Preoperative Teaching and Preoperative Self Instructional Booklet which was significant at 0.01 level. It was found out that there was a significant difference between Video Assisted Preoperative Teaching and Preoperative Self Instructional Booklet on reducing Postoperative Anxiety. By comparing the mean scores of Video Assisted Preoperative Teaching ($\bar{X} = 4.57$) were had a better impact on reducing the Postoperative Anxiety than Preoperative Self Instructional Booklet ($\bar{X} = 7.67$).

The comparison of Postoperative Depression scores of the subjects in Video Assisted Teaching and Self Instructional Booklet Group. The obtained t' value for Postoperative Depression scores of the 2 Groups were 5.01 and this t' value was significant at 0.01 level. Hence it revealed that there was a significant difference between Video Assisted Preoperative Teaching and Preoperative Self Instructional Booklet. When comparing the mean scores of Video Assisted Preoperative Teaching ($\bar{X}=4.80$) had a better effect on reducing Postoperative Depression than the Preoperative Self Instructional Booklet($\bar{X} = 7.30$).

The results implied that, on reducing the Postoperative Anxiety and Depression, Computer Assisted Preoperative Teaching was more effective than the Preoperative Self Instructional Booklet among the patients subjected to CABG.

Regarding Physiological Parameters, the comparison of Postoperative Physiological parameters of the subjects in Video Assisted Teaching Group and Self Instructional Booklet Group. The obtained t' value for Pulse rate in postoperative period of the subjects in both groups were 3.84, it was significant at <0.05 level. Hence it revealed that there was a significant difference in the Postoperative period Pulse rate

of the subjects in Video Assisted Teaching Group and Self Instructional Booklet Group. By comparing the mean scores, it was suggested that the Video Assisted Preoperative Teaching ($\bar{X} = 87.67$) had more influence on Postoperative period Pulse rate than Preoperative Self Instructional Booklet ($\bar{X} = 95.67$).

The t' value obtained for the Postoperative period Respiratory rate of the subjects in Video Assisted Teaching and Self Instructional Booklet Group were 3.24 and it was significant at 0.01 levels. It states that there was significant difference that exist among Postoperative period Respiratory rate of Video Assisted Preoperative Teaching and Preoperative Self Instructional Booklet. This was explained that Video Assisted Preoperative Teaching ($\bar{X} = 23.3$) had more influence on Postoperative period Respiratory rate than Preoperative Self Instructional Booklet ($\bar{X} = 26.06$).

The t' value of 0.26 obtained between both Video Assisted Teaching Group and Self Instructional Booklet Group on Postoperative period Blood pressure was not significant. Hence it is evident that there was no significant difference in both interventions on Blood pressure in the postoperative period.

Asilioglu,K (2004) investigated about the effect of preoperative education on anxiety of cardiac patients. In this study mainly they aimed at to evaluate effect of teaching method in open cardiac patients. This study consist of 100 samples among that 50 were placed in interventional group and 50 were in control group. Samples were assessed by State Trait Anxiety Inventory. The mean of State Trait Anxiety score was high in control group than the interventional group and also all patients in the interventional group stated that they were satisfied with the education.

The present study supported this study that here the anxiety of both Video Assisted Teaching Group and Self Instructional Booklet Group was decreased. But the anxiety of the Video Assisted Teaching Group was decreased more than the Self Instructional Booklet Group. So the Video Assisted teaching was more effective.

The second and third objective of the study was to correlate the Postoperative Anxiety and Depression and also Postoperative Anxiety and Mean arterial pressure.

This objective concluded that there was a positive relationship between Postoperative Anxiety and Depression and also Postoperative Anxiety and Mean arterial pressure.

Postoperative Depression, and Postoperative Mean arterial pressure had relationship with Postoperative Anxiety of patients subjected to CABG. To specify in order, Postoperative Anxiety had significant positive relationships with Postoperative Depression ($r = 0.627^{**}$) and Postoperative Mean arterial pressure ($r = 0.269^{*}$).

The fourth objective of the study was to associate the Postoperative Anxiety and Depression with selected demographic variables.

The present study also revealed that age, sex, education had no significant influence on Post operative Anxiety and Depression. The association between the Postoperative Anxiety of patients subjected to CABG and age, education.

The obtained “F” value for various age groups in the Video Assisted Teaching Group and Self Instructional Booklet Group were 0.422 and 1.152 respectively. The obtained ‘F’ was not significant at any level and it reveals that there was no significant difference in Postoperative Anxiety among subjects in various age groups and it concluded that age had no impact on Postoperative Anxiety.

The obtained “F” value for the educational level of the subjects in Video Assisted Teaching Group and Self Instructional Booklet Group were 1.183 and 1.111 respectively. The obtained “F” value was not significant at any level and it explains that there was no significant difference in Postoperative Anxiety among subjects there in various educational level. Hence it was concluded that education had no impact on Postoperative Anxiety.

The association between Post operative Anxieties of the patients subjected to CABG and their Sex. The obtained t’ values between males and females in Video

Assisted Teaching Group and Self Instructional Booklet Group were 1.240 and 1.443 respectively. These values were not significant at any level. Hence it concluded that there was no influence of sex on Postoperative Anxiety among subjects in both groups and it is obvious that there was no relationships that exist between sex and Postoperative Anxiety.

The association between Postoperative Depression of patients subjected to CABG and age, education. The table shows the “F” value for various age groups of the subjects in Video Assisted Teaching Group and Self Instructional Booklet Group were 0.067 and 1.331 respectively. The obtained “F” values were not significant at any level and it reveals that there was no significant difference in Postoperative Depression among subjects in both groups of various age groups and it concluded that age had no effect on Postoperative Depression.

Regarding education, the obtained “F” value for the educational level of the subjects in Video Assisted Teaching Group and Self Instructional Booklet Group were 2.187 and 1.262 respectively. The obtained “F” value was not significant at any level and it explains that there was no significant difference in Postoperative Depression among subjects in both groups were there in various educational level. Hence it concluded that education had no impact Postoperative Depression.

The association between Postoperative Depression scores of patients subjected to CABG and their sex. The obtained t’ values between males and females in Video Assisted Teaching Group and Self Instructional Booklet Group were 1.536 and .900 respectively. These values were not significant at any level. Hence it concluded that there was no influence of sex on Postoperative Depression among subjects in both groups and it is obvious that there was no relationship that exist between sex and Postoperative Depression.

Nelson et.al(1998) investigated about the relationship and influence of anxiety on post operative activity in the CABG patients and in that study they reported that factors like age , gender, marital status, educational status, number of previous surgeries had negative correlation with Postoperative Anxiety.

SUMMARY

The study was conducted to assess the effectiveness of Video Assisted Preoperative Teaching Vs Preoperative Self Instructional Booklet on Post Operative Anxiety, Depression and Physiological parameters among patients subjected to CABG at KMCH Coimbatore.

The objectives for the study were to

1. Compare the effectiveness of Video Assisted Teaching and Preoperative Self Instructional Booklet on Post operative Anxiety, Depression and Physiological parameters among patients subjected to CABG.
2. Correlate the Postoperative Anxiety and Depression of the patients subjected to CABG.
3. Correlate the Postoperative Anxiety and Mean arterial pressure of the patients subjected to CABG
4. Associate Postoperative Anxiety, Depression and Physiological parameters with selected Demographic variables.

The study tested the hypothesis

- There is a significant difference between Video Assisted Teaching and Preoperative Self Instructional Booklet in reducing the Postoperative Anxiety, Depression and change in Physiological Parameters among patient subjected to CABG.

Betty Neuman's systems model adopted as a conceptual framework. Post Test Only Experimental design was adopted for the study. The sample size was 60 and non probability convenient sampling technique was used to select the subjects.

The tool used by the investigator for data collection consists two sections

Section-I : Demographic proforma

Section-II : Hospital Anxiety Depression Scale

The data was collected for a period of 6 weeks in KMCH hospital. The subjects in both experimental groups received Video Assisted Preoperative Teaching and Preoperative Self Instructional Booklet respectively. Based on the objectives and hypothesis, data were analysed using both descriptive and inferential statistics.

Major findings of the study.

1. t' value mean difference in the Hospital Anxiety scores of the group Received Computer Assisted Teaching and group received Preoperative Self Instructional Booklet was highly significant at 0.01 level.
2. t' value mean difference in Hospital Depression scores of the group received Video Assisted Preoperative Teaching and the group received Preoperative Self Instructional Booklet was significant at 0.01 level.
3. There is a positive relationship existing between Postoperative Anxiety and Depression and also with Postoperative Anxiety and Postoperative Blood pressure of patients subjected to CABG.
4. There was no association Between the Postoperative Anxiety and Depression with Demographic variables of the patients subjected to CABG.

CONCLUSION

The following conclusion drawn from the study

The Post operative Anxiety level of the patients who received education with Video was significantly lower than those who received education with Preoperative Self Instructional Booklet.

The Postoperative Depression level of the patient who received education with Video was significantly lower than those who received education with Preoperative Self Instructional Booklet.

There was positive correlation existing between Postoperative Anxiety and Depression and also between Postoperative Anxiety and Postoperative Blood pressure.

There was no significant association between Post operative Anxiety and Depression with demographic variables of the patients subjected to CABG.

IMPLICATIONS

An individual undergoing any kind of surgery will be anxious regarding their postsurgical outcome and health status after the surgery and also they will experience the mood change like depression because of the long term waiting for the surgery and the life style restrictions or changes needed for them throughout their life. Many studies proved that gaining knowledge helps to reduce the anxiety and depression especially for the unknown procedures and surgeries. So effective education helps the patient to eliminate their anxiety and depression while they are going through the pre, intra, and post operative period. It has vital aspect in preventing post operative anxiety and depression.

Implication for nursing practice.

- ❖ In the modern era more importance is for the prevention rather than cure. The findings of the study clearly emphasis the fact that Video Assisted Preoperative Teaching reduces the Postoperative Anxiety and Depression than the Instructional Booklet Teaching.
- ❖ Nursing personnel are in the best position to impart education in the hospital, as a part of the preoperative preparation of patients than the other members of the health team.
- ❖ The study findings signify the importance of providing Video Assisted preoperative Teaching in the surgical wards, as the multi sensorial approach of the Video Assisted Teaching, the knowledge will easily reach to the patient.
- ❖ Nursing personnel must also see to that the educational intervention on coronary artery bypass graft surgery and related aspects are available or the patients in all languages for the patient and family members.
- ❖ The staff nurses can be provided with opportunities like education programmes on effective communication, and teaching skills through in-service education to enhance their knowledge on the respective subject matters.

Nursing education

- ❖ The study clearly proved that Video Assisted Teaching regarding the disease condition, preoperative nursing interventions and postoperative exercises and other interventions and life style changes needed were effective in preventing and reducing Post operative Anxiety and Depression. To practise this, nursing personnel need to have adequate knowledge.
- ❖ If nursing personnel is aware of the impact of anxiety on health, a great revolution will take place in the field of health in preventing Post operative Anxiety and Depression; this will improve the prognosis after the surgery and shorten the hospital stay.
- ❖ Providing preoperative education must be emphasised in the nursing curriculum so that the nursing students will be aware of the importance of providing preoperative education and prevention of postoperative complications.

Implications for nursing research

- ❖ The present study can be utilised to conduct a study on large population.
- ❖ The findings of the present study can motivate nurses working in other areas to conduct similar studies to reduce the problems of their patients.
- ❖ Extensive research must be conducted in this area to identify the postoperative complications as a result of Postoperative Anxiety..
- ❖ Research also can be conducted in this area to identify the effect of Postoperative Depression on the prognosis of the patient after surgery.

Implications for nursing Administration

- ❖ The nurse administrator may allocate resources to do further studies in critical care units and surgical wards.
- ❖ The administrators must be assertive and formulate the policies regarding patient education and assure its successful implication into practice.
- ❖ In-service education can be conducted to disseminate the research findings through continuous nursing education to all nurses.

- ❖ Nurse educator can formulate the policies to incorporate Computer Assisted teaching intervention in cardiothoracic unit.

Limitations

- ❖ The findings cannot be generalised as the sample size was limited to 60.
- ❖ The age group was limited to 40- 70..
- ❖ Study setting was limited to KMCH.

Recommendations

1. A similar study can be conducted in a larger group of sample.
2. Similar studies may be conducted for other surgical conditions
3. A similar study can be conducted to find the effect of Preoperative intervention on need for analgesia
4. A study can be done by using other anxiety and depression reducing measures.
5. A similar can be done by measuring the knowledge along with anxiety.
6. The same study can be conducted for long duration with repeated measurement of variables to assess the self efficacy.

ABSTRACT

The present study entitled "The effectiveness of Video Assisted Preoperative Teaching Vs Preoperative Self Instructional Booklet on Post Operative Anxiety, Depression and Physiological Parameters among patients subjected to CABG at KMCH, Coimbatore." was undertaken by Ms. Jincy George during the year 2011-2012 in the partial fulfillment for the degree of Master of science in nursing at KMCH college of nursing Coimbatore, which is affiliated to Dr.M.G.R medical university, Chennai.

Objective: To find out the effectiveness of Video Assisted Preoperative Teaching Vs Preoperative Self Instructional Booklet on Postoperative Anxiety, Depression and Physiological parameters among patient subjected to CABG. **Design:** Post test only experimental design. **Setting:** The Cardiothoracic surgical ward of Kovai Medical Centre and Hospital, Coimbatore. **Sample Size:** 60 patients both male and female above the age of 18 years with CABG were recruited for the study, of which 30 were in Video Assisted Preoperative Teaching Group and remaining 30 were in Self Instructional Booklet Group. **Conceptual frame work:** Betty Neuman's systems model was adopted for the study. **Data Collection:** After collecting the demographic data, the educational interventions were administered. After administering the intervention, on the 3rd postoperative day Anxiety and Depression were measured by using Hospital Anxiety Depression Scale for both the groups and Physiological Parameters also were measured. **Interventions:** For the group-1 Video Assisted Preoperative Teaching given on the day before the surgery for 30 minutes and for the group-2 Preoperative Self Instructional booklet given on the day before the surgery. **Results:** Subjects who received Video Assisted Teaching had shown a significant reduction in Postoperative Anxiety and Depression ($P < 0.0001$). There was a positive correlation between Postoperative Anxiety and Depression and also with Postoperative Anxiety and Blood pressure. There was no significant association found between the demographic variables with Postoperative Anxiety and Depression. **Conclusion:** The excavated results supported that administration of Video Assisted Preoperative Teaching in nursing care for the patient subjected to CABG was an effective intervention to relieve the Postoperative Anxiety and Depression after the surgery.

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APPENDICES

APPENDIX – A

DEMOGRAPHIC PROFILE:

1. AGE:

- A. 40-50
- B. 50-60
- C. 60-70

2. SEX:

- A. Male
- B. Female.

3. EDUCATION:

- A. Uneducated
- B. Primary
- C. Secondary
- D. Degree or diploma

4. NATURE OF WORK:

- A. Sedentary
- B. Moderate
- C. Heavy

5. DURATION OF ILLNESS:

- A. Upto 12
- B. 13-24
- C. >24

6. AREA OF RESIDENCE:

- A. Rural
- B. Urban

APPENDIX -B
PHYSIOLOGICAL VARIABLES.

1. PULSE RATE

2. RESPIRATORY RATE

3. BLOOD PRESSURE

APPENDIX - C

HOSPITAL ANXIETY DEPRESSION SCALE

	YES definitely	YES sometimes	NO, not much	NO, not at all
1. I wake early and sleep badly for the rest of night				
2. I get very frightened or have panic feelings apparently no reason at all.				
3. I feel miserable and sad.				
4. I feel anxious when I go out of house on my own				
5. I have lost interest in things.				
6. I get palpitation or sensations of 'BUTTERFLIES' in my stomach or chest.				
7. I have a good appetite.				
8. I feel scared or frightened.				
9. I feel life is not worth living				
10. I still enjoy the things i used to				
11. I am restless and can't keep still				
12. I am more irritable than usual				
13. I feel as if I have slow down.				
14. Worrying thoughts constantly go through my mind.				

Qh!;gpl;ly; Md;irl;o o@g;u#d; !;nfy; !;nfhh;

t. vz;		Mk; cz;ikahf	,y;iy vg;bghGjhtJ	,y;iy Xust[,y;iy vg;bghGJk; ,y;iy
1	ehd; rPf;fpukhf vGe;J gpd;/ ,utpy; kPjKs;s neu;jjpy; kpft[k; J}';Fntd;.				
2	ehd; kpft[k; gag;gLntd; (my;yJ) vdf;F fhuzkpd;wp gak; njhd;Wk;.				
3	ehd; Jf;ffukhft[k; tUj;jkhft[k; ,Uf;fpnwd;.				
4	ehd; tPl;il tPl;L btspna brd;why; kpft[k; ftiyahf vz;qntd;.				
5	ehd; Mh;tk; ,y;yhky; ,Uf;fpnwd;.				
6	ehd; glglg;gha; ,Uf;fpnwd; (my;yJ) vd; tapw;wpy; my;yJ be";rpy; gl;lhk;g{r;rp gwg;gJ nghy ,Ug;gjhf czh;fpnwd;.				
7	vdf;F ed;whf grpf;fpwJ.				
8	ehd; FHg;gkhf my;yJ gakhf ,Uf;fpnwd;.				
9	thH;f;if vd;gJ caph; thH;tjw;F kjpg;gw;wjhf epidf;fpnwd;.				
10	ehd; ,g;nghJ gad;gLj;jpa bghUl;fshy; re;njh#khf ,Uf;fpnwd;.				
11	ehd; ,g;nghJk; Xa;tw;W ,Uf;fpnwd;.				
12	ehd; Xa;tw;W ,Uf;fpnwd; kw;Wk; mnj epiyapy; ,d;Wk; cs;nsd;.				
13	ehd; bkJthf fPnH nghtJ nghy czUf;fpnwd;.				
14	tUj;jkhd epidt[fs; vg;nghJk; vd; kdjpy; ,Uf;Fk;.				

ഹോസ്പിറ്റൽ ആംക്സൈറ്റി ആന്റ് ഡിപ്രഷൻ സ്കെയിൽ

1.	ഞാൻ രാത്രിയിൽ നേരത്തെ ഉണർന്ന ശേഷം ബാക്കി സമയം ഉറക്കം വരാതെ ചെലവഴിക്കുക	തീർച്ചയായും	ചിലപ്പോഴൊക്കെ	ഇടക്കൊക്കെ	തീരെയില്ല
2.	ഒരു കാരണവുമില്ലാതെ ഞാൻ ദയചകിതനാവുകയും എന്തോ ദയനാകുമായത് സംഭവിക്കാൻ പോകുന്നു എന്ന തോന്നൽ ഉണ്ടാവുകയും ചെയ്യുന്നു.				
3.	ഞാൻ ദുഃഖിതനും നിരാശനുമായി കാണപ്പെടുന്നു.				
4.	വീടിന് പുറത്തേക്ക് പോകുമ്പോൾ ഞാൻ വളരെ ജിജ്ഞാസയുള്ളവനായി മാറുന്നു.				
5.	എനിക്ക് ഒന്നിലും താല്പര്യം തോന്നാറില്ല				
6.	എനിക്ക് ഹൃദയമിടിപ്പ് കൂടുതലായി തോന്നുന്നു				
7.	എനിക്ക് നല്ല വിശപ്പുണ്ട്.				
8.	ഞാൻ ദയവിഹ്വലനാണ്.				
9.	ജീവിതത്തിൽ നിരാശ തോന്നുന്നു.				
10.	ഞാൻ ഇഷ്ടപ്പെടുന്ന എല്ലാ കാര്യങ്ങളും ഇപ്പോഴും ഇഷ്ടപ്പെടുന്നു.				
11.	ഞാൻ അസ്വസ്ഥനാണ്.				
12.	സാധാരണയിൽ കൂടുതൽ ഞാൻ അത്യാപ്തനാണ്.				
13.	സാധാരണയിൽ കൂടുതൽ ഞാൻ കാര്യങ്ങൾ നടക്കുന്നതിൽ അലസനാണ്.				
14.	മനസ് വിഷമിപ്പിക്കുന്ന ചിന്തകൾ മാത്രമേ എനിക്ക് വരികയുള്ളൂ.				

APPENDIX -D

Preoperative Self Instructional Booklet and Video Assisted Teaching

INTRODUCTION

Cell is the structural and functional unit of a human body. Oxygen and nutrients are vital elements for its normal functioning, and blood aids by transporting these oxygen and nutrients and also by removing the waste products. In human body, blood vessels and heart rate are mechanically metaphorised as motor as pump set; where, heart being the 'motor' pumps the blood through the blood vessels to the various parts of our body and to the lung for reoxygenation.

HEART

Heart is an important organ in the human body. Roughly, it has the same size (but not the same shape) as your closed fist. It weighs about 250gms in females and 300gms in males and lies in the thoracic cavity, the space between the lungs, little more to the left than the right.

HOW DOES HEART FUNCTION?

The heart is having four chambers 2 atria and 2 ventricles. Right atria and right ventricle, left atria and left ventricle. From the blood vessel the right atrium of the heart receives deoxygenated blood and blood will flow to the right ventricle through the tricuspid valve. From the right ventricle through the pulmonary artery it goes to the lungs for oxygenation and from the lungs it comes back to the left ventricle through the mitral valve and from the left ventricle the blood is pumped out to different parts of the body through the aorta.

The heart muscle also requires nutrients and oxygen to function and blood is supplied by coronary artery vessels. Oxygenated blood is supplied by coronary arteries and deoxygenated blood is drained by coronary sinus in the right atria.

WHAT IS A CORONARY ARTERY DISEASE?

Coronary artery diseases affect the arteries that supply blood to the heart muscle. A Symptom of chest pain occurs when these arteries become narrowed or clogged, when the blood flow to the heart muscle is reduced. Heart attack occurs when the blood flow in the coronary artery is completely cut off depriving the oxygen supply, blood and nutrients causing cell death.

WHAT CAUSES THESE BLOCKEGES?

There are multiple causes for narrowing of coronary artery,

- **ATHEROSCLEROSIS:** it is the development of fatty plaques or accumulation of lipids and fibrous tissue in the inner wall of the blood vessel.
- **THROMBOSIS:** it is a condition in which the blood changes from a liquid to a solid taste and produces a blood clot (thrombus) and this clot will obstruct the blood flow to the tissue.
- **SPASM:** it is a sustained involuntary contraction muscular contraction of the blood vessel.
- **ANEURYSM:** it is balloon like swelling in the wall of an artery due to weakness of arterial wall

Atherosclerosis is the most prevalent cause for coronary artery disease.

WHO IS AT RISK?

YOUR AGE AND GENDER: Age is the most powerful risk factor for atherosclerosis. pre menopausal women have much lower rates of disease compared to the male of the same age and gender difference disappears rapidly after the menopause..

YOUR Family history: People with family history of coronary artery disease are at higher risk of suffering from it

HYPERTENSION: Constantly elevated blood pressure will cause endothelial injury and increases the rate of atherosclerotic development

DIABETES MELLITUS: People with diabetes have an increased tendency toward connective tissue degeneration and endothelial dysfunction and also will cause atheroma development

HYPERCHOLESTOLEMIA: The increased cholesterol concentration in blood leads to formation of plaque.

YOUR LIFE STYLE

Using tobacco products: Nicotine in tobacco causes vasoconstriction that will lead to increased BP and increased cardiac workload and also cause endothelial injury of blood vessels. Using snuff and chewing tobacco also increases the risk

STRESS: It increases the incidence of CAD.

FOOD HABITS: High calorie, high fat and high cholesterol diet increases the risk of CAD.

PHYSICAL INACTIVITY: lack of adequate exercise and sedentary habits lead to an increased risk of CAD

OBESITY.

WHAT ARE THE WARNING SIGNS OF HEART ATTACK?

- ✓ Heavy pressure or pain in chest , with the discomfort possibly radiating down from left arm or up toward jaw
- ✓ The discomfort will be more severe, last long and resist improvement even with rest.
- ✓ Nausea, vomiting, shortness of breath, weakness, dizziness, fainting, or profuse sweating

TREATMENT STRATEGY

1. MEDICAL MANAGEMENT
2. INTERVENTIONAL MANAGEMENT
3. SURGICAL MANAGEMENT

1. MEDICAL MANAGEMENT

People having mild coronary artery disease can be managed medically. The drug which is prescribed by the physician should be strictly consumed. Also people who have extensive coronary artery disease and who are not suitable for revascularization procedures will have to undergo medical management.

2. INTERVENTIONAL MANAGEMENT

PERCUTANEOUS TRANSLUMINAL CORONARY ANGIOPLASTY [PTCA]

It is a revascularization of the narrowed or completely obstructed blood vessel in which an inflatable balloon, mounted on the tip of the flexible catheter is placed within the lumen of the affected vessel at the site of the narrowing or blockage.

3. SURGICAL MANAGEMENT.

WHAT IS A CORONARY ARTERY BYPASS GRAFT (CABG)?

CABG is a procedure that reroutes or 'bypasses' the blood flow around a clogged artery to restore blood supply to areas of heart muscle that are not receiving an adequate supply. In this procedure the blood vessel is taken from another part of the patient's body and attached beyond clogged segment of the coronary artery and blood will flow through the newly attached vessel.

WHO NEEDS CABG?

- ✓ Significant left main coronary artery stenosis.
- ✓ 70% stenosis of the blood vessel
- ✓ Multiple vessel disease
- ✓ Single vessel disease which cannot be treated by PTCA.
- ✓ Diffuse coronary artery disease which cannot be treated by PTCA.
- ✓ Complication of coronary artery disease like ventricular septal rupture, left ventricular aneurysm and free wall rupture will need correcting those defects along with CABG

WHEN IT SHOULD BE DONE?

At the earliest after diagnosis to avoid further pain before surgery. It is best to undergo revascularization before the cardiac muscle is affected.

HOW IT CAN BE DONE?

Mainly two methods are there

On pump: In this the heart will be connected to a heart lung machine or bypass pump. This machine does the work of your heart while your heart stopped for the surgery. The machine adds oxygen to your blood and moves your blood through your body. In experienced centres, though the heart is supported with heart lung machine , the heart is not stopped and CABG is done on the beating heart.

Off pump: In this method the bypass is created while your heart is still beating. This is called off pump coronary bypass or OPCAB. This method eliminates some of the risk like renal failure, stroke etc associated with using heart lung machine.

HOW SAFE IS CABG?

CABG is surgery is of low risk and less than 1% for cases with good heart function. Depending on the cardiac function and associated complication of ischemic heart disease and other morbidities like renal failure etc, the risk increases. Advanced cardiac centres with a well experienced cardiothoracic team minimises the even these risks significantly.

WHERE IT SHOULD BE DONE?

It is preferable to do CABG at advanced cardiac centre where off pump surgery is being done by an experienced cardiac surgeon as the complications are much less. Heart lung machine is used only when heart does not tolerate positioning and even if used , CABG done on a beating heart.

WHAT TO EXPECT BEFORE SURGERY?

- Preoperative assessment for knowing the condition like history collection and physical examination and laboratory test include blood analysis, urine analysis, chest radiograph, ECG, echocardiography and other significant specialised investigations if required.
- Site preparation will be done by shaving from neck to foot the day before surgery.
- Need to take bath by using betadine twice a day before surgery .Unstable patients can have a body wash with assistance.
- Hexidine mouthwash should be taken thrice daily.
- Postoperative respiratory physiotherapy procedures and steam inhalation technique will be explained
- Restricted physical activity and remains confined to bed. Avoid mobile phone use and restrict visitors to reduce stress.
- Consent form should be signed by patients before surgery. Doctors and nurses will give explanation regarding disease, anaesthesia, surgery , its complications and exercises before signing in the form.
- Restricted diet as advised and nil per oral from midnight on the day before surgery will be followed till you are transferred.

Before shifting to theatre

- Intravenous line be inserted to administer medication before during and after surgery.
- You should remove your valuables like jewels, watch, dentures, hair pin, nail polish, contact lens etc before leaving for the operation
- You will be in sterile hospital gown.
- The nurse will administer medication to you one hour before the surgery to facilitate sleep and relaxation

HOW YOU WILL BE SHIFTED TO OPERATION THEATRE?

One hour before surgery you will be transferred to operation theatre for inserting the IV lines and tubes. You will be connected to oxygen. You will be accompanied by a nurse and family members up to cardiothoracic complex. There you will be taken over by the theatre nurse and shifted inside while your relatives can be seated outside the complex.

HOW MUCH TIME WILL IT TAKE FOR THE PROCEDURE?

Usually it will take four hours and will depend on the number of bypass required.

WHAT WILL BE THE TYPE OF ANAESTHESIA?

General will be administered by means of volatile agents through endotracheal tube and intravenous agents.

WHERE WILL BE THE SITE OF SURGICAL INCISION ?

Surgical wound will be in the chest , leg or hand based on the selection of graft.

CONDUITS USED FOR GRAFTING?

Commonly leg vein called saphenous vein, radial artery from the fore arm and internal mammary artery near to back of the anterior chest wall are taken as grafts.

TYPES OF SUTURES USED?

Non absorbable sutures are used on the heart and for the chest wall absorbable sutures are used. Sternum is approximated using steel wire.

WHAT TO EXPECT AFTER SURGERY?

- After the surgery you will be in cardiothoracic ICU.
- You will be regaining consciousness within 2-3 hours after surgery.
- You will not be able to speak because for the easy breathing there will be a tube placed in the wind pipe through your mouth which will be connected to a machine called ventilator with its tubes and which will be kept for 6-24 hours.

- There will be tubes like catheter to drain urine, two or more tubes to drain fluid in and around the heart, IV line will be in the arm, a three way IV line in the neck for hemodynamic monitoring, ECG leads for monitoring the heart function.
- Once you are fully conscious and can breathe comfortably, the ventilator support will be weaned of f and the oral tube will be removed
- You will be provided mouth care after the oral tube removal
- You will be getting nebulisation and steam inhalation to bring out the secretions.
- If you are experiencing pain inform the nurse or doctor and they will be giving medication to provide comfort.
- Once you are absolutely stable you will be shifted to high dependency unit.
- You are not suppose to pull any of the invasive devices

WHEN CAN I SEE MY FAMILY MEMBERS?

You will be seeing your closest relatives as soon as you become conscious. Only one person will be allowed to enter inside the ICU twice a day.

WHEN WILL I BE GIVEN FOODS AND FLUIDS ORALLY?

You are allowed to take fluids as you attain swallowing capacity. On the first 4 hours after removal of the oral tube fluids will be provided to attain swallowing capacity. You will be given liquid diet initially followed by semi solid diet on the 2nd day. Normal diet will be given as soon as you are ambulant and are comfortable. You will be restricted to take fluid up to 1500- 2000 ml.

WHEN CAN I MOVE OUT OF BED?

- You will be mobilised gradually in a staged pattern next day.
- You can move out of your bed after surgery when you are absolutely comfortable.
- You will be instructed to do the foot and ankle exercises and walking will help to improve the circulation in your legs and will also promote healing.

- You will be first made to sit on the cot, then stand followed by chair sitting and finally walking.
- Standing or walking may produce burning sensation in the leg where the graft was taken. Sometimes swelling also will be there. Elastic stocking or crape bandage will be provided to decrease the swelling. Bandages need to be used during the day time

WHEN CAN I GO TO THE WARD?

Once you are absolutely comfortable and stable you will be shifted to ward. This is usually on the first day or second day after surgery depending on your condition.

WHEN WILL THE TUBES BE REMOVED?

- 3 way neck lines will be removed after you are absolutely stable usually on the second or third after surgery.
- Chest tube will be removed on the 2nd or 3rd day after the surgery.
- Urinary catheter is removed once you are ready to walk.

DO I NEED BLOOD TRANSFUSION DURING SURGICAL PROCEDURE?

You may require about 4 units to be donated on the day of the surgery which will be transfused only if required.

WHEN WILL I BE DISCHARGED FROM THE HOSPITAL?

You will be observed in the ward until you are comfortable doing your daily activities without any support and then will be discharged. This is sometimes as early as 5th day after surgery.

WHEN CAN I RESUME TO MY NORMAL ACTIVITIES?

The muscle gain strength by gradually increasing the activities day by day. Avoid lifting objects heavier than 25-30 pounds until 8 weeks. Usually it takes about 6-8 weeks for the incision to heal completely and when you feel strong you can resume your normal activities. If your job does not require physical demand, you can return to

work 4-6 weeks after surgery normal activities can be resumed 12 weeks after surgery if you are absolutely comfortable. you can bath 7 days after surgery.

DO I NEED ANY LIFE STYLE MODIFICATION ?

Diet modification

- Low fat low cholesterol, high protein, high fiber and low salt
- Use oil with low saturated fat and high in unsaturated fat eg: sun flower oil, olive oil etc.
- Avoid coconut oil, palm oil and ground nut oil
- Eat garlic and onion regularly. It helps in reversing the damage and clogging of arteries
- Eat fruits and vegetables regularly
- Eat oats regularly to chase down the cholesterol
- Eat food which contain vitamin C eg:lemon,orange etc
- Eat only skinless chicken and avoid mutton
- Cooked fish especially small fish are good for the health
- Don't eat fried items, yellow of yolk,beef,pork and organ meat like kidney,brain,liver.
- Avoid whole milk, ice cream,butter,chees etc

Habits

- Avoid smoking and tobacco chewing
- Avoid alcohol

Exercise

- Regular exercise : walking 10 to 15 minutes for the first 2-4 weeks .After the surgery gradually increase to 20-30 minutes by the end of 4 weeks
- Shoulder exercise to be done three times a day up to 6 weeks
- Deep breathing exercise to be done hourly
- Wear comfortable cloths
- Do exercise in the morning and evening

- Do not exercise after meals
- Select the environment free of hot/humid/cold weather
- Avoid vigorous arm and shoulder activities especially overhead activities
- Avoid exercising when you are feelings tensed; instead practise some relaxation techniques
- Don't exercise if you have an acute illness

Warning signs to stop exercise

- Pain or chest discomfort that is not relieved with medication or with 15 minutes of rest
- Marked shortness of breath
- Unusual palpitation
- Feeling tired
- Giddiness
- Nausea and vomiting
- Swelling of your feet and ankles
- Seek medical help if these warning signs occur

Activities

- Please avoid lifting or carrying heavy objects
- Gather things together before starting out an activity
- Gradually build up the activities
- Don't entertain many visitors

Points to remember

- Avoid driving or riding for three months
- Go out of home only after one month
- Maintain wound hygiene
- Accept help from others even for daily routine activities
- Ask a friend or family members to accompany you until 3 months

- Eat qualitatively not quantitatively

POST OPERATIVE EXERCISE SCHEDULE

Step 1

- After removing the oral tube deep breathing exercise has to be started immediately. The exercises should be done around 10-15 times for every hour
- After two hours of removing the oral tube spirometry has to be done hourly
- Ankle pumping exercises should be done every hour for at least 10 times
- Cough exercises have to be started with supporting the incision site by cross holding the hands over the complete chest in order to remove the secretions
- Crepe bandage will be removed and reapplied

Step 2:

Whatever you have done in the first step you should follow in the second step also. In addition to that

- The physiotherapist will start the chest percussion to mobilise the secretion
- After the exercises you will be placed in a straight sitting position with support for 30 minutes
- Once you become stable you will be shifted from bed to chair sitting for 30 minutes

Step 3: apart from step 2 activities

- Once your blood pressure is stable you are allowed to walk for short distance with support

Step 4: in addition to the previous activities

- Thoracic expansion exercises will be started
- Shoulder rotation exercises will be started

Step 5: all the activities done in the 4th step should be followed here. In addition to that

- Walking will be increased with support. You should walk once in 2 hours

Step 6: in this stage you are allowed to climb 5 steps with support depending on the physician order. Climb one step at a time.

THE EXERCISES I NEED TO PERFORM POST OPERATIVELY

You will be instructed to do the deep breathing and coughing technique to expectorate the secretions to prevent respiratory infections and also ankle pump exercises to strengthen the muscle and shoulder exercises to prevent the shoulder deformity

Breathing exercises

- Sit up in bed with back and shoulder well supported with pillows
- Place our hand one over the other on the abdomen and relax
- With mouth closed, inhale deeply through the nose and make the abdomen rise as much as possible. If the hand on the abdomen rises, the exercise is performed correctly
- Hold the breath for few seconds and then exhale slowly and completely through the mouth
- Repeat the exercise for 5 minutes at 2 hour interval

Coughing exercise

It helps to dislodge the secretions from the respiratory tract

- Make the patients to sit on the chair, or on the edge of the bed
- Ask him to lean forward slightly from a sitting position, interlace the fingers together and place the hands across the incision site to act as a splint when coughing
- Take a deep breath followed by a short period of breath holding

- Contract the abdominal muscles and cough 2-3 times in rapid succession. Ask the patients to breathe deeply and repeat the entire exercise 5 times

Spirometry

Mainly for visual feedback of breathing. All three balls can be raised during the inspiration breathe deeply and try to hold the balls in position as long as you can. Do blowing exercises also. Only two balls will be raised during blowing

Ankle pumping exercise

In this exercise you should move your foot forward and backward

Thoracic expansion exercise

- Take deep breath along with hand elevation
- Exhale out the air and lowering the elevated arms

Shoulder rotation exercises

- Flex your elbow and touch your shoulder
- In the same position you should rotate your arm clockwise and anti clockwise
- Do the exercise within the pain limit

APPENDIX – E

Photos of Video Assisted Teaching and Self Instructional Booklet



Preoperative Self Instructional Booklet



Video Assisted preoperative Teaching

APPENDIX – F



K M C H COLLEGE OF NURSING

(Recognised by the Govt of Tamil Nadu, INC, New Delhi & The Tamil Nadu Nurses & Midwives Council, Chennai.)

Affiliated to The Tamil Nadu Dr. MGR. Medical University, Chennai

K.M.C.H. Campus, Avanashi Road, Coimbatore - 641 014, INDIA

Ph : (0422) 4323740, 2627196 Telefax : (0422) 2627525 E-mail : info@kmch.ac.in Website : www.kmch.ac.in



Ref : KMCT/ 2393/ /07/11

12-07-2011

To

Prof. Dr. V. Nandakumar, M.S., M.Ch., M.N.A.M.S., F.I. A.C.S
Chief Cardiothoracic Surgeon
Kovai Medical Center and Hospital,
Coimbatore – 14

Dear Sir


Greetings to you from KMCH College of Nursing.

I submit that one of our M.Sc(N) final year students by name Ms. Jincy George specializing in Medical Surgical Nursing in our College desires to conduct a study titled "A study to assess the effectiveness of Video Assisted Preoperative Teaching Vs Preoperative Self Instructional Booklet on Postoperative Anxiety, Depression and Physiological parameters among patients subjected to CABG at KMCH, Coimbatore" as part of her M.Sc(N) curriculum.

As she is in need of Medical Expert to complete the study, I request you to guide the student.

Thanking you

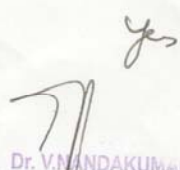
Yours Truly,


12.7.11

Prof. DR. S. Madhavi, M.Sc(N)., Ph.D.,
Principal

The Principal
K.M.C.H. College of Nursing,
P.B.No : 3209, Avanashi Road,
Coimbatore - 641 014.




Dr. V. NANDAKUMAR,
M.S., M.Ch., M.N.A.M.S. (Cardiothoracic) FIACS
TN Medical Council No. 29759
CHIEF CARDIOTHORACIC SURGEON
Kovai Medical Center and Hospital
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APPENDIX-G
REQUISITION FOR CONTENT VALIDITY

From

Jincy George
II year Msc.Nursing,
KMCH College of Nursing,
Coimbatore-641014.

To

Through,

The Principal,
KMCH College of Nursing,
Coimbatore-641014.

Respected Sir/Madam,

Sub: Seeking Expert opinion for content validity

I wish to undertake a study titled, **“A STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED PREOPERATIVE TEACHING Vs PREOPERATIVE SELF INSTRUCTIONAL BOOKLET ON POSTOPERATIVE ANXIETY, DEPRESSION AND PHYSIOLOGICAL PARAMETERS AMONG PATIENTS SUBJECTED TO CABG AT KMCH,COIMBATORE”**.It will be of immense help to me if you could peruse the proposal and the research tool.Herewith,I am enclosing the copy to the same.

Kindly do the needful.

Thanking you,

Place: Coimbatore
obediently,

Yours

APPENDIX - H

SECTION -A

CERTIFICATION OF CONTENT VALIDITY

This is to certify that I have persued the research proposal submitted by Ms. Jincy George .’ ‘
A study to assess the effectiveness of Video Assisted Preoperative Teaching Vs Preoperative
Self Instructional Booklet on Post Operative Anxiety, Depression and Physiological
parameters among patients subjected to CABG at KMCH Coimbatore.’

I found that the methodology and Instruments are appropriate .

Place:



P. Kuythil
Signature and Seal

Date:

APPENDIX - I

LIST OF EXPERTS

1. **Prof.DR.S.Madhavi,M.Sc(N),Ph.D.,**

Principal and HOD of Medical Surgical Nursing,
KMCH College of Nursing,
Coimbatore – 641014.
2. **Dr. N. Rajendiran, M.A., (App.Psy),Ph.D.,**
Professor in psychology,
Psychologist,
Kovai Medical Center and Hospital,
Coimbatore-641014
3. **Prof,Dr.V. Nandakumar,**
M.S.,M.Ch., M.N.A.M.S.,F.I.A.C.S
Chief Cardiothoracic Surgeon
Kovai Medical Center and Hospital,
Coimbatore- 641014
- .
4. **Prof. K.Balasubramanian,M.Sc(N), (Ph.D),,**

Department of Medical Surgical Nursing,

KMCH College of Nursing,
Coimbatore – 641014.
5. **Mr.P.Kuzhanthaivel., M.Sc(N),**
Associate Professor,
Department of Medical Surgical Nursing,
KMCH College of Nursing,
Coimbatore – 641014.